



CERTIFICATE OF ANALYSIS

Product: ORANGE 5 FOLD

Batch Number: 4383313

Best Before End: JANUARY 2023

Specific Gravity 15 ° C	0,8592
RefractiveIndex20 ° C	1,475
Opticalrotation15 ° C	89,90
Aldehyde Content	3,37%

**ALLERGEN-CERTIFICATE**

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**SUPPLIER : MADAR Corporation Limited**

**PRODUCT NAME : Orange 5 Fold**

<b>List of 26 "allergens"</b>	<b>CAS Nr.</b>	<b>% OR ppm</b>
2-METHYL-3-(4-(1,1-DIMETHYL ETHYL PHENYL) PROPANAL (LINALIL)	80-54-6	NO
ALPHA METHYL IONONE	127-51-5	NO
AMYL CINNAMIC ALCOHOL	101-85-9	NO
AMYL CINNAMIC ALDEHYDE	122-40-7	NO
ANISYL ALCOHOL	105-13-5	NO
BENZYL ALCOHOL	100-51-6	NO
BENZYL BENZOATE	120-51-4	NO
BENZYL CINNAMATE	103-41-3	NO
BENZYL SALICYLATE	109-85-9	NO
CINNAMIC ALCOHOL	104-54-1	NO
CINNAMIC ALDEHYDE	104-55-2	NO
CITRAL (Neral+Geranial)	5392-40-5	0,604 %
CITRONELLOL	106-22-9	NO
COUMARIN	91-64-5	NO
EUGENOL	97-53-0	NO
FARNESOL	46-84-0	NO
GERANIOL	106-24-1	0,026%
HEXYLCINNAMIC ALDEHYDE	101-86-0	NO
HYDROXYCITRONELLAL	107-75-5	NO
HYDROXYMETHYLPENTTYLCYCLOHEXENE CARBOXALDEHYDE (LIRAL)	31906-04-4	NO
ISOEUGENOL	97-54-1	NO
LIMONENE	5989-27-5	96,080%
LINALOOL	78-70-6	0,438%
METHYL HEPTINE CARBONATE	111-12-6	NO
OAKMOSS	90028-68-5	NO
TREEMOSS	90028-67-4	NO



September 26th 2017

**STATEMENT**

WE: MADAR CORPORATION, HEREWITH CERTIFY AND CONFIRM THAT THE  
ORANGE 5 FOLD ESSENTIAL OIL SUPPLIED IS **GMO FREE**



**FRAGRANCE IFRA 48 INFORMATION SHEET**

**PRODUCT NAME:** Orange 5 Fold

- A. This material complies with the regulation (EC) no.1223/2009 on cosmetic products?      Yes **x**      No
- Annex II (prohibited) compounds: not added
  - Annex III (restricted) compounds: see lists below
  - Annex IV (colorants), V (preservatives), VI (UV filters) compounds: not added

- B. This material complies with the most current IFRA Guidelines? (IFRA 48)      Yes **x**      No

According to the IFRA 48<sup>th</sup> amendment, please complete the tables below:

**Please note that materials specifically addressed in the IFRA 48<sup>th</sup> amendment or in the updated Annex 1 tables are bolded:**

**EU Fragrance Allergens**

Ingredient Name	% Direct (added as such)	% from Naturals	% Impurities (from synthetics)	% Total
Acetic acid, anhydride, reaction products with 1,5,10-trimethyl-1,5,9-cyclododecatriene (Trimofix O, Fixamber) (144020-22-4)(28371-99-5)				
alpha-Amyl Cinnamic Aldehyde (122-40-7)				
alpha-Amyl Cinnamic Alcohol (101-85-9)				
Anisyl Alcohol (105-13-5)				
Benzyl Alcohol 100-51-6)				
Benzyl Benzoate (120-51-4)				
Benzyl Cinnamate (103-41-3)				
Benzyl Salicylate (118-58-1)				
3-(m-tert-Butylphenyl)-2-methylpropionaldehyde (m-BMHCA) (62518-65-4)				
Cinnamic Alcohol (104-54-1)				
Cinnamic Aldehyde (104-55-2)				
Citral (mixture of neral + geranial) (5392-40-5)				<b>0,604</b>
Citronellol (106-22-9)				
Coumarin (91-64-5)				
6,7-Dihydro-1,1,2,3,3-pentamethyl-4(5H)-indanone (DPMI) (33704-61-9)				
Eugenol (97-53-0)				
Farnesol (4602-84-0)				
gamma-Methyl Ionone (127-51-5)				
Geraniol (106-24-1)				<b>0,026</b>
Hexyl Cinnamic Aldehyde (101-86-0)				
Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde (31906-04-4)				
Hydroxycitronellal (107-75-5)				
Iso Eugenol (97-54-1)				
Butylphenyl Methylpropional (80-54-6)				
Limonene (5989-27-5)/(138-86-3)/(5989-54-8)				<b>94,080</b>
Linalool (78-70-6)				<b>0,438</b>
Methyl Heptine Carbonate (111-12-6)				
Oakmoss (68917-10-2/90028-68-5)				
Treemoss (68648-41-9 90028-67-4)				

**IFRA 48th Amendment restricted substances (other than allergens)**

Name	CAS	% Direct (added as such)	% from Naturals	% Impurities (from synthetics)	% Total
Allyl esters					
AHMI (Phantolide)	15323-35-0				
Allyl Phenoxyacetate	7493-74-5				
Benzaldehyde	100-52-7				
Benzenepropanal, 4-methoxy-alpha-methyl	5462-06-6				
Benzyl cyanide	140-29-4				
Bourgeonal	18127-01-0				
Alpha Butyl cinnamaldehyde	7492-44-6				
Carvone	99-49-0				
Cinnamic aldehyde dimethyl acetal	4364-06-1				
Cinnamyl nitrile	4360-47-8				
Cis/trans asarone	5273-86-9 / 2883-98-9				
Creosol	93-51-6				
Cuminaldehyde	122-03-02				
Cyclamen alcohol	4756-19-8				
Cyclamen aldehyde	103-95-7				
Cyclopentadecanolide	106-02-05				
Damascenone	23696-85-7				
Damascone alpha	43052-87-5				
Damascone beta	23726-92-3, 23726-91-2				
Damascone delta	57378-68-4				
Damascone gamma	35087-49-1				
Damascone Iso	39872-57-6, 33673-71-1, 70266-48-7				
Dihydrocoumarin	119-84-6				
Dibenzyl ether	103-50-4				
Dimethylcyclohex-3-ene-1-carboxaldehyde (mixed isomers)	68737-61-1, 68039-49-6, 68039-48-5, 27939-60-2, 67801-65-4				
Dimethylcyclohexenepentenone (Dynascone/Galbascone)	56973-85-4				
Dihydrosafrol	94-58-6				
Dimethyl anthranilate	85-91-6				
Estragole	140-67-0				
2-Ethoxy-4-methylphenol	2563-07-7				
p-Ethylbenzaldehyde	4748-78-1				
Furfural	98-01-1				
Helional (alpha-Methyl-1,3-benzodioxole-5-propionaldehyde)(MMDHCA)	1205-17-0				
2-Heptylidene-cyclopentan-1-one	39189-74-7				
trans-2-Hexenal	6728-26-3				
Hexyl salicylate	6259-76-3				
Hexylidene cyclopentanone	17373-89-6				
Iso E super	54464-57-2				
Isobergamate	68683-20-5				
Isobutyl N-methylantranilate	65505-24-0				
p-Isobutyl-alpha-methyl Hydrocinnamal	6658-48-6				
Isocyclocitral	1335-66-6				
Isocyclogeraniol	68527-77-5				
Isosafrol	120-58-1				
Majantol	103694-68-4				
p-Methoxybenzaldehyde	123-11-5				
ortho-Methoxycinnamaldehyde	1504-74-1				

7-Methoxycoumarin	531-59-9				
Scntenal	86803-90-9				
Methyl beta naphthyl ketone	93-08-3				
Methyl cinnamic aldehyde	101-39-3				
Methyl eugenol	93-15-2				
Methyl heptadienone	1604-28-0				
Methyl ionones, mixed isomers	1335-46-2				
Methyl octine carbonate	111-80-8				
3-Methyl-2-(pentyloxy)cyclopent-2-en-1-one	68922-13-4				
p-Methyltetrahydroquinoline	91-61-2				
2-Nonyl-1-al dimethyl acetal	13257-44-8				
Nootkatone	4674-50-4				
1-Octen-3-yl acetate	2442-10-6				
1-(2,4,4,5,5-Pentamethyl-1-cyclopenten-1-yl)ethan-1-one	13144-88-2				
Perilla aldehyde	2111-75-3				
Phenyl acetaldehyde	122-78-1				
3-Phenylbutanal	16251-77-7				
2-Phenylpropionaldehyde	93-53-8				
Polynuclear Aromatic Hydrocarbons (PAHs)					
Propylidene phthalide	17369-59-4				
Pseudomethylionone	26651-96-7, 72968-25-3, 1117-41-5				
Pseudoionone	141-10-6				
Safranal	116-26-7				
Safrol	94-59-7				
Sclareol	515-03-7				
1,2,3,4-Tetrahydro-4-methylquinoline	19343-78-3				
o,m, p-Tolualdehydes and their mixtures	529-20-4, 620-23-5, 104-87-0, 1334-78-7				

**IFRA 48<sup>th</sup> Amendment restricted naturals**

Name	CAS	%	Name	CAS	%
Angelica root oil	8015-64-3		Opoponax	8021-36-1 9000-78-6	
Bergamot oil expressed	8007-75-8		Peru balsam ext. and distillates	8007-00-9	
Birch wood oil, distillates	8001-88-5 84012-15-7 85940-29-0 68917-50-0		Petitgrain Mandarin oil	8014-17-3	
Bitter orange peel oil expressed	68916-04-1 72968-50-4		Rue oil	8014-29-7 84929-47-5	
Cade oil, distillates	8013-10-3 90046-02-9		Savin oil, <i>Juniperus phoenicea L.</i>	8024-00-8	
Citrus Oils and other furocoumarines containing essential oils	Not available				
Cumin oil	8014-13-9		Styrax	8046-19-3 8024-01-9	
Grapefruit oil expressed	8016-20-4 90045-43-5		Tagetes oil and absolutes	91722-29-1 8016-84-0	
Jasmine Grandiflorum	8022-96-6 8024-43-9 90045-94-6 84776-64-7		Tea leaf absolute	84650-60-2	
Jasmin Sambac	91770-14-8		Verbena absolute	8024-12-2	
Lemon oil cold pressed	8008-56-8 84929-31-7		Vetiver oil acetylated (Vetiveryl Acetate)	117-98-6 84082-84-8 72230-87-6 84082-84-8	
Lime oil expressed	8008-26-2 90063-52-8		Ylang ylang	8006-81-3 68606-83-7 83863-30-3	
Melissa oil (geniune Melissa officinalis L.)	8014-71-9 84082-61-1				

## IFRA 48<sup>th</sup> Amendment prohibited materials

To the best of our knowledge, this product does not contain any material prohibited or not recommended by IFRA up to and including the 48<sup>th</sup> amendment

### List of materials either prohibited or not “recommended for use” up to and including the 48<sup>th</sup> amendment

Acetyl ethyl tetramethyl tetralin (AETT, Versalide)	88-29-9	2,4-Heptadienal	5190-85-0
Acetyl isovaleryl (5-Methyl-2,3-hexanedione)	13706-86-0	trans, trans, 2,4-Heptadienal	4313-03-5
Allantroot oil (Elecampane oil)	97676-35-2	trans-2-Heptenal	18829-55-5
Allyl heptin carbonate	73157-43-4	2,4 Hexadienal	80466-34-8
Allyl isothiocyanate	57-06-7	trans, trans, 2,4 Hexadienal	142-83-6
Amyl cyclopentenone	25564-22-1	trans, cis, 2,4 Hexadienal	53398-76-8
		2,4-Hexadien-1-ol	111-28-4
Anisylidene acetone (4-(4-methoxyphenyl)-3-buten-2-one)	943-88-4	Hexahydrocoumarin	700-82-3
cis-beta Asarone ((Z)-2,4,5-Trimethoxypropen-1-yl benzene)	5273-86-9	trans-2-Hexenal diethyl acetal	67746-30-9
trans Asarone ((E)-1,2,4-trimethoxy-5-prop-1-enylbenzene)	2883-98-9	trans-2-Hexenal dimethyl acetal	18318-83-7
Benzene (directly added, not indirectly added from naturals or as synthetic impurity)	71-43-2	Hydroabietyl alcohol (Abitol)	13393-93-6
Benzyl cyanide (directly added, not indirectly added from naturals)	140-29-4	Hydroabietyl alcohol (Abitol)	1333-89-7
Benzylidene acetone (4-Phenyl-3-buten-2-one)	122-57-6	Hydroquinone monoethylether (4-Ethoxy phenol)	622-62-8
Birch wood (bark) pyrolysates (oils), crudes (not rectified or distilled)	8001-88-5	Hydroquinone monomethylether (4-Methoxy phenol)	150-76-5
Birch wood (bark) pyrolysates (oils), crudes (not rectified or distilled)	85940-29-0	Isophorone	78-59-1
Birch wood (bark) pyrolysates (oils), crudes(not rectified or distilled)	84012-15-7	6-Isopropyl-2-decalol	34131-99-2
Boldo leaf oil	8022-81-9	Massoia bark oil	85085-26-3
Boldo leaf oil	84649-96-7	Massoia lactone	54814-64-1
3-Bromo-1,7,7-trimethylbicyclo[2.2.1]heptane-2-one	76-29-9	7-Methoxycoumarin (directly added, not indirectly added from naturals)	531-59-9
Bromstryene	103-64-0	alpha-Methyl anisylidene acetone (1-(4-Methoxyphenyl)-1-penten-3-one)	104-27-8
p-tert-Butylphenol	98-54-4	6-Methyl coumarin (Toncarine)	92-48-8
Cade oils, crude (not rectified or distilled)	8013-10-3	7-Methyl coumarin	2445-83-2
Cade oils, crude(not rectified or distilled)	90046-02-9	Methyl crotonate	623-43-8
Carvone oxide	33204-74-9	4-Methyl-7-ethoxycoumarin (Maraniol)	87-05-8
Chenopodium oil	8006-99-3	Methyl methacrylate	80-62-6
Chenopodium oil	89997-47-7	3-Methyl-2 (3)-nonenenitrile	53153-66-5
Cinnamylidene acetone	4173-44-8	Moskene	116-66-5
Colophony	8050-09-7	Musk ambrette	83-66-9
Costus root oil, absolute and concrete	8023-88-9	Musk tibetine	145-39-1
Costus root oil, absolute and concrete	90106-55-1	Musk xylol	81-15-2
Cyclamen alcohol (3-(4-Isopropylphenyl)-2-methylpropanol)	4756-19-8	Nitrobenzene	98-95-3
2,4-Decadienal	2363-88-4	2,4-Nonadienal	6750-03-4
trans, trans, 2,4-Decadienal	25152-84-5	trans, trans, 2,4-Nonadienal	5910-87-2
1,3-Dibromo-2-methoxy-4-methyl-5-nitrobenzene (Musk KS)	62265-99-0	2,4-Octadienal, trans, trans	30361-28-5
1,3-Dibromo-4-methoxy-2-methyl-5-nitrobenzene (Musk alpha)	No CAS	2,4-Pentadienal	764-40-9
2,2-Dichloro-1-methylcyclopropylbenzene	3591-42-2	Pentylidene cyclohexanone	25677-40-1
Diethyl maleate	141-05-9	Peru balsam (exudation from Myroxylon pereirae (Royle) Klotzsch) (not extract or rectified or distilled)	8007-00-9
Dihydroabietyl alcohol	26266-77-3	Phenyl acetone (Methyl benzyl ketone)	103-79-7
		Phenyl benzoate	93-99-2
2,4-Dihydroxy-3-methyl-benzaldehyde	6248-20-0	Pseudoionone (2,6-Dimethylundeca-2,6,8-trien-1-one)	141-10-6
4,6-Dimethyl-8-t-butyl coumarin (Butolia)	17874-34-9	Pseudomethylionones	26651-96-7
Dimethyl citraconate (cis-Methylbutenedioic acid, dimethyl ester)	617-54-9	Pseudomethylionones	72968-25-3
3,7-Dimethyl-2-octen-1-ol (6,7-Dihydrogeraniol)	40607-48-5	Pseudomethylionones	1117-41-5
Diphenyl amine	122-39-4	Quinoline	91-22-5
2,4-Dodecadienal, trans, trans	21662-16-	Safrole, , (directly added, not indirectly added from naturals)	94-59-7
2,4-Dodecadien-1-ol, (2E, 4E)	18485-38-6		
Esters of 2-nonynoic acid, except methyl octine carbonate	Various	Isosafrole (directly added, not indirectly added from naturals)	120-58-1
Esters of 2-octynoic acid, except methyl and allyl heptine carbonate	140-88-5	Dihydrosafrole (directly added, not indirectly added from naturals)	94-58-6
Ethyl acrylate	110-80-5	Santolina oil	84961-58-0
Ethylene glycol monoethyl ether	111-15-9	Savin Oil (Juniperus savina L.)	8024-00-8
Ethylene glycol monoethyl ether acetate	109-86-4	Styrax gums, crude (not extract or rectified or distilled)	8024-01-9
Ethylene glycol monomethyl ether	110-49-6	Styrax gums, crude (not extract or rectified or distilled)	8046-19-3
Ethylene glycol monomethyl ether acetate	68916-52-9	Styrax gums, crude (not extract or rectified or distilled)	94891-27-7
Fig leaf absolute	90028-74-3	Styrax gums, crude (not extract or rectified or distilled)	94891-28-8
Fig leaf absolute		Toluene (directly added, not indirectly added from naturals or as synthetic impurity)	108-88-3
		2,4-Undecadienal	13162-46-4
Furfuryl alcohol	98-00-0	trans, trans, 2,4-Undecadienal	30361-29-6
Furfurylideneacetone	623-15-4	Verbena oil	8024-12-2
	5146-66-7, 5585-39-7, 31983-27-4		
Geranyl nitrile		Verbena oil	85116-63-8



The information provided in this document is correct to the best of our knowledge and belief at the state of its application (texts, literature, etc..)

It is the ultimate responsibility of our customer to ensure the safety of the final products by further testing if need be.

## SAFETY DATA SHEET

Safety data sheet according to 1907/2006/EC, Article 31

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY UNDERTAKING

#### 1.1 Identification of the substance or preparation:

Trade name: Orange 5 Fold  
 REACH Registration n°: 01-2119493353-35-0011  
 CLP reference n°: N/a  
 Cas (TSCA): 8008-57-9                      Cas (Einecs): 8028-48-6  
 Einecs: 232-433-8                      CoE: 143  
 Fema: 2825                      FDA: 182.20

#### 1.2 Uses of the substance: Flavours & Fragrances

#### 1.3 Company / undertaking identification :

MADAR Corporation Limited  
 19-20 Sandleheath Industrial Estate  
 Fordingbridge  
 SP6 1PA

#### Approved sellers:

Mystic Moments, New Directions, World of Moulds

### 2. HAZARDS IDENTIFICATIONS

#### 2.1 Classification of the substance: Essential oil

##### 2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)

Hazard classes and Hazard categories	Hazard Statements
Flam. Liq. 3	H226
Skin Irrit. 2	H315
Skin Sens. 1	H317
Asp. Tox. 1	H304
Aquatic Chronic 1	H410

**2.1.2 Classification according to 67/548/EEC and 1999/45/EC**

Xn, N

R10/38/43/50-53/65

**2.1.3 Additional information:**

The product has to be labelled according to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

The classification is according to the latest edition of EU-lists, and added to by company and literature data.

Full text of R-, H- and EUH-phrases: see section 16

**2.2 Label Elements****2.2.1 Labelling according Regulation (EC) No. 1272/2008 (CLP/GHS)**

**Hazard component for labelling:** Limonene

**Hazard Pictograms**

GHS02

GHS07

GHS08

GHS09

**Signal word:**

Danger

**Hazard statements:**

H226: Flammable liquid and vapour

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H304: May be fatal if swallowed and enters airways

H410: Very toxic to aquatic life with long lasting effects

**Precautionary Statements:**

P210: Keep away from heat / sparks/ open flames/ hot surfaces/ no smoking

P241: Use explosion-proof electrical/ventilating/lighting equipment

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P280: Wear Protective Gloves / protective clothing/ eye protection/ face protection

P273: Avoid release to environment

P301+P310: If swallowed: immediately call a poison center or doctor/physician

P303+P361+P353: If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P331: Do not induce vomiting

P405: Store locked up

P501: Dispose of contents / container in accordance with local regulations.

**3.COMPOSITION / INFORMATION ON INGREDIENTS**

**3.1 Description of the mixture:** Mixture mainly consisting of the following components:

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
5989-27-5	227-813-5	60-99%	Limonene	R10-38-43-50/53
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
5989-27-5	227-813-5	60-99%	Limonene	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chr. 1, H400 Aquatic Chr. 1, H410

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
80-56-8	201-291-9	0-4%	Alfa Pinene	R10-43-50/53-65
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
80-56-8	201-291-9	0-4%	Alfa Pinene	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chr. 1, H400 Aquatic Chr. 1, H410

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
5392-40-5	226-394-6	0-3%	Citral	R38-43
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
5392-40-5	226-394-6	0-3%	Citral	Skin Irrit. 2, H315 Skin Sens. 1, H317

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
123-35-3	204-622-5	0-5%	Myrcene	R10-65
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
123-35-3	204-622-5	0-5%	Myrcene	Flam. Liq. 3, H226 Asp. Tox. 1, H304

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
98-55-5	202-680-6	0-2%	Alpha-Terpineol	R38
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
98-55-5	202-680-6	0-2%	Alpha-Terpineol	Skin Irrit. 2, H315

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
78-70-6	201-134-4	0-9%	Linalool	R38
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
78-70-6	201-134-4	0-9%	Linalool	Skin Irrit. 2, H315

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
124-13-0	204-683-8	0-5%	Octanal	R10-36/38-52/53
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
124-13-0	204-683-8	0-5%	Octanal	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Ser. Eye Damage/ Eye Irr. 2, H319 Chr. Haz. 3, H412

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
112-31-2	203-957-4	0-6%	Decanal	R38-52/53
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
112-31-2	203-957-4	0-6%	Decanal	Skin Irrit. 2, H315 Chr. Haz. 3, H412

Cas	Einecs	Range	Name	Classification according to 67/548/EEC
106-23-0	203-376-6	0-1%	Citronellal	R38-43-52/53
Cas	Einecs	Range	Name	Classification according to EC 1272/2008 (CLP)
106-23-0	203-376-6	0-1%	Citronellal	Skin Irrit. 2, H315 Skin Sens. 1, H317 Haz. Acq. 2, H411

#### 4.FIRST AID MEASURES

**General information:**

If health disorders happens, call for medical help immediately.  
Immediately remove any clothing soiled by the product.

**4.1 Inhalation:** Attend to fresh air. In case of complaints seek medical attention.

**4.2 Skin contact:** In case of contact with skin wash immediately with soap and water.

**4.3 Eye contact:** In case of contact with eyes rinse thoroughly with water.

**4.4 Swallowing:** If swallowed, do not induce vomiting: call for medical help immediately.

#### 5.FIRE-FIGHTING MEASURES

**5.1 Suitable extinguishing media:** CO2, alcoholresistant foam

**5.2 Unsuitable extinguishing media:** Water

**5.3 Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases:** Vapours may form explosive mixture with air.

**5.4 Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus and protective suits.

**Additional information:**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

#### 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipments and emergency procedures**

**6.1.1 Personal precaution:** follow safety measures in Section 7 and 8. Use personal protective equipment.

**6.2 Environmental precautions:** Do not allow to enter canalisation/waterways/groundwater  
Inform respective authorities in case of seepage into water course or sewage system.

**6.3 Clean up methods:** Soak up with absorbent, inert material (sand, universal binders) and dispose contaminated material as waste according to section 13.

Dispose of in accordance with federal, state and local environmental regulations.

**Reference to other sections:** Keep ignition source away, do not smoke and avoid flames.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling:** Use only in well ventilated area. Avoid contact with skin, eyes and clothing. NO SMOKING.

**7.2 Information on fire and explosion protection:** Keep away from possible sources of ignition. No smoking.

**7.2 Storage:** Store in well filled tight suitable containers; drums should only be considered as a means of transportation. Do not store with flammable or explosive materials and strong oxidizing agents. Keep drums tightly closed. Store dark, dry and under cold temperatures.

Protect against warming / overheating. Recommended storage temperature: 8-12°C.

**7.3 Advice on general occupational hygiene:** Avoid excessive inhalation of concentrated vapours. Follow good manufacturing practices for housekeeping and personal hygiene. No eating, drinking and smoking during work. Avoid contact with the eyes and skin. Remove contaminated clothing. Wash hands thoroughly before breaks and at the end of the working day.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Ingredients with limit values that require monitoring at the workplace:

5989-27-5 (R)-p-mentha-1,8-diene

### 8.2 Exposure controls

#### 8.2.1 Personal protection equipment, general protective and hygienic measures

Use personal protective equipment. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of the work. Avoid contact with the eyes and the skin.

**8.2.2.1 Eye/Face protection:** Use tightly sealed goggles.

**8.2.2.2 Skin protection:** Use protective gloves.

**Type of material of gloves:** The material of the gloves has to be impermeable and resistant to the product/the substance/the preparation/the chemical mixture.

However due to the missing information available because no tests have been conducted, the choice of the material of the gloves should take into account the penetration time, rates of diffusion and the degradation.

**Breakthroughtime of the glove material:** The penetration time of the glove material must be set by the manufacturer of the protective gloves according to the substance/the preparation/the chemical mixture.

**8.2.2.3 Respiratory protection:** Wear suitable respiratory equipment in case of insufficient ventilation. Suitable respiratory protection: filter class A2 (brown colour).

Use the rules for application of respiratory protection systems.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Important health, safety and environmental information

#### 9.1.1 Appearance

**Physical state:** Liquid    **Colour:** According to specifications    **Odour:** Characteristic

#### 9.2.2 Safety relevant basic data

Boiling point: Not determined

Flash point: 47°C

Explosive properties: Product is not explosive; however formation of explosive air/vapour mixtures are possible.

Solubilità/water solubilità: Not miscibile

**Self-igniting:** Product is not selfigniting, but in case of unpropitious storing conditions (air admission, heat accumulation) selfignition is possible for moistened solids (e.g. cloth, pulp, filter panels, binder).

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible

## 10. STABILITY AND REACTIVITY

### Reactivity

#### Chemical Stability

**10.1 Thermal decomposition /Conditions to avoid:** Heating causes vaporisation and formation of ignitable atmosphere is possible. Direct source of heat.

**10.2 Incompatible materials:** Strong acids and oxidising agents

**10.3 Possibility of hazardous reactions:** Formation of explosive gas mixture with air possible.

In case of unpropitious storing conditions (air admission, heat accumulation) selfignition is possible for moistened solids (e.g. cloth, pulp, filter panels, binder)

**10.4 Hazardous decomposition products:** No dangerous decomposition known.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity:

LD/LC50 values relevant for classification:

Cas : 5989-27-5 (R) – p-mentha-1,8-diene

LD 50 oral (rat) 4400mg/Kg



Acute effects:  
 Primary irritant effect:  
 On the skin: Irritant to skin and to mucous membranes.  
 On the eyes: Irritating effect.  
 Sensitisation: Sensitisation through skin contact.  
 Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparation as issued in the latest version.  
 Irritant.  
 Sensitisation: Sensitisation through skin contact.

## 12. ECOLOGICAL INFORMATION

General information:  
 Water hazard class 1 (German regulation) (VwVwS3824, Cas 84929-31-7)  
 Do not allow to enter canalisation / waterways / groundwater.  
 Biodegradation: no data available.  
 Ecotoxic effects: Very toxic to aquatic organism, may cause long term adverse effects in the aquatic environment.  
**Warning – The safety of this product has not been determined**

### General notes:

Also poisonous for fish and plankton in water bodies.  
 May cause long-term adverse effects in the aquatic environment.  
 Very toxic for aquatic organisms  
 Water hazard class 2 (German regulation) (VwVwS 3822; CAS 84929-38-4): hazardous for water

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Recycling is preferred to disposal and burning.  
 If recycling is not possible, dispose in accordance with federal, state and local environmental regulations.  
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European Waste catalogue	
02 03 03	Wastes from solvent extraction

### 13.2 Uncleaned packaging:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.  
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.  
 Moistened solids (e.g. cloth, pulp, filter panels, binder) can be burnt after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

**14. TRANSPORT INFORMATION****14.1 Land transport (ADR/RID):****UN-No: 1169****Proper shipping name:** Extracts, Aromatic, Liquid**Class:** 3**Subsidiary Risk:** not applicable**Packing group:** III**Hazard Label:** 3**14.2 Sea transport (IMO):****UN-No: 1169****Proper shipping name:** Extracts, Aromatic, Liquid**Class:** 3**Packing group:** III**Marine pollutant:** Yes**EMS:** F-E, S-D**14.3 Air transport (ICAO/IATA):****UN-No: 1169****Proper shipping name:** Extracts, Aromatic, Liquid**Class:** 3**Subsidiary Risk:** not applicable**Packing group:** III**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****· National regulations:****· Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

**· Breakdown regulations:**

Critical quantity values according to the regulations on accidents should be adhered to.

**· Waterhazard class:**

Water hazard class 2 (German regulation) (VwVwS 3822; CAS 84929-38-4): hazardous for water

**· Other regulations, limitations and prohibitive regulations**

Comply with the rules and regulations of skin protection.

Comply with the rules and regulations of respiratory protection.

**16. OTHER INFORMATION**

The information provided in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its application. This information is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal and should not to be considered as a warranty or quality specification.

**Recommended restriction of use:** For industrial applications only.

**Classification according to regulation EC 1207/2008 (CLP)****Hazard statements:**

H226: Flammable liquid and vapour

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H304: May be fatal if swallowed and enters airways

H410: Very toxic to aquatic life with long lasting effects

**Precautionary Statements:**

P210: Keep away from heat / sparks/ open flames/ hot surfaces/ no smoking

P241: Use explosion-proof electrical/ventilating/lighting equipment

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P280: Wear Protective Gloves / protective clothing/ eye protection/ face protection

P273: Avoid release to environment

P301+P310: If swallowed: immediately call a poison center or doctor/physician

P303+P361+P353: If on skin (or hair): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower.

P331: Do not induce vomiting

P405: Store locked up

P501: Dispose of contents / container in accordance with local regulati

**Relevant R- and S- phrases:****Risk phrases**

R 10: Flammable

R 38: Irritating to skin

R 43: May cause sensitisation by skin contact

R 50/53: Very toxic to aquatic organism, may cause long term adverse effects in the aquatic environment.

R 65: Harmful: may cause lung damage if swallowed.

**Safety phrases:**

S 24: Avoid contact with the skin

S 37: Wear suitable gloves

S 61: Avoid release to the environment. Refer to special instructions/ material safety data sheets

S62: If swallowed, do not induce vomiting : seek medical advise immediately and show this container or label.

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SPECIFICATIONS

DATE 29/04/2016

Product: Orange 5 Fold

<i>Colour</i>	: Orange to dark orange
<i>Odour</i>	: Characteristic
<i>Specific Gravity</i> 15°C	: 0,8530-0,8700
<i>Refractive Index</i> 20°C	: 1,4700 – 1,4800
<i>Optical rotation</i> 15°C	: 83 - 95
<i>Aldehydes calculated as Citral</i>	: Min. 2%



## **Vegetarian & Vegan Suitability Statement**

PRODUCT NAME: **Orange 5 Fold Essential Oil**

MADAR Corporation Limited can confirm that the above listed product has not been tested in animals and does not contain dairy or any other animal product, by product or derivative and is therefore suitable for vegetarian and vegan use.

04/02/19