



Material Safety Data Sheet

According to EU Regulation 1907/2006

Mandarin Essential Oil Organic

SECTION 1: Identification of the substance/mixture and of the company/undertaking


1.1 Product Identifier

Product Name	Mandarin Essential Oil Organic				
Biological Definition	Citrus Nobilis Peel Oil Expressed is an essential oil expressed from the epicarps of the Mandarin, Citrus nobilis, Rutaceae				
INCI Name	Citrus nobilis peel oil expressed				
Synonyms & Trade Names	- - -				
Internal Product Code	OCMANDRED				
FEMA No.	2657	FDA No.	182.20	CoE No.	142
CAS-No	84929-38-4	EC No.	284-521-0	EINECS No.	284-521-0

1.3 Details of the supplier of the safety data sheet

Emergency Contact	
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SECTION 2: Hazards identification	
2.1 Classification of the substance or mixture	
Classification (67/548/EEC)	Xn+N; R10-38-43-51/53-65, S24-37-61-62
Classification (EU 1272/2008)	UN-GHS: FL 3, AH 1, SCI 2, SS 1, EH A1,C1 EU-CLP: FL 3, AH 1, SCI 2, SS 1, EH A2,C2
2.2 Label elements	
Label in accordance with Regulation (EC) No 1272/2008	
GHS Label:	   
Signal word:	Danger
Contains	Limonene, gamma-terpinene, myrcene, pinenes, linalool
Hazard Statements:	H304 May be fatal if swallowed and enters airways H315 Causes skin irritation H317 May cause an allergic skin reaction H410 Very toxic to aquatic life with long-lasting effects H226 Flammable liquid and vapour
Precautionary Statements:	P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking P241 Use explosion-proof electrical/ventilation/lighting equipment P262 Do not get in eyes, on skin or on clothing P280 Wear protective gloves/protective clothing/eye protection/face protection. P273 Avoid release to the environment P301+310 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 the correct manner
Supplementary Precautionary Statements:	P391 Collect spillage
Risk phrases and Safety phrases in full refer to <i>Section 16 – Other Information</i>	
2.3 Other hazards	
Adverse physio-chemical properties	Combustible but will not self-ignite
Adverse effects on human health	May induce sensitisation by skin contact
SECTION 3: Composition/information on ingredients	
3.1 Substances	
70% to 80% Limonene UN-GHS: SCI 2, SS 1, EH A1,C1 10% to 25% gamma-Terpinene UN-GHS: ATO 5(3850), SCI 3 <7% Pinenes UN-GHS: ATO 5(3700), SCI 2, SS 1 1-5% Myrcene UN-GHS: EDI 2A, SCI 2	
3.2 Mixtures	
~74.0% Limonene CAS-No.: 5989-27-5 EC No.: 227-813-5 Classification (EC 1272/2008) Flam. Liq. 3 – H226, Skin Irrit 2 – H315 Asp Tox. 1 – H304, Skin Sens. 1 – H317 Aquatic Acute 1 – H400, Aquatic Chronic 1 – H410 ~18.0% Y-terpinene CAS-No 99-85-4, EC 202-794-6 Classification (EC 1272/2008); Flam. Liq. 3 – H226, Asp Tox. 1 –H304 ~2.0% Alpha-pinene CAS-No.: 80-56-8 EC No.: 201-291-9 Classification (EC 1272/2008) Flam. Liq. 3 - H226, Skin Sens. 1 - H317, Asp. Tox. 1 - H304, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410 ~2.0% Myrcene (7-methyl-3-methylenoocta-1,6-diene) CAS-No.: 123-35-3 EC No.:204-622-5 Classification (EC 1272/2008) Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Asp. Tox. 1 - H304	
EU INCI	US INCI
N/A	N/A

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SECTION 4: First aid measures

4.1 Description of first aid measures

General Information	See categories below
Inhalation	Remove from exposure area to fresh air for at least 15 minutes, in case of complaints seek medical attention.
Ingestion	Seek immediate medical attention - Wash mouth out with water and do not provoke vomiting.
Skin Contact	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice if irritation persists or there is any sign of tissue damage.
Eye Contact	Flush with plenty of water and seek medical advice if necessary.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Inhalation – can cause slight headache. Contact – can cause bloodshot eyes, skin rash.

Acute and delayed effects: No post-disorder effects are reported.

4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical assistance: See point 4.1

Immediate/special treatment: See point 4.1

First aid specific means: Eye wash fountain/safety shower should be available in the work area.

SECTION 5: Fire fighting measures

5.1 Extinguishing Media

Small fires: Use CO₂, Dry Powder or Foam type extinguishers,

Large fires: Use water spray or fog-cool containing vessels with water jet in order to prevent pressure build-up, auto-ignition or explosion.

Unsuitable extinguishing media: Pressurized water jet.

5.2 Special hazards arising from the substance or mixture.

Vapour may form explosive mixture with air – in case of fire, the following can be released: Carbon Monoxide (CO), Carbon Dioxide (CO₂), smoke, soot.

5.3 Advice for fire-fighters

Standard procedure for chemical fires - spray extinguishing media to base of flames - use adequate protections for respiratory apparatus, avoid vapour inhalation.

SECTION 6: Accidental release measures

6.1 Personal precautions

Maintain good occupational and personal hygiene. Avoid contact with skin and eyes.

6.2 Environmental precautions

Do not discharge directly into drains or soil. Keep away from surface and ground water.

6.3 Methods and material for containment and cleaning up

Keep away from heat and use non-combustible absorbing sawdust (sand, specific binder). Refer to point 13 for the appropriate methods of waste treatment.

6.4 References to other sections.

Please refer to *Section 4 - First aid measures*

Please refer to *Section 8 - Exposure controls/personal protection*

Please refer to *Section 13 - Disposal Considerations*

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SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Safe handling: during handling keep original container closed - avoid contact with skin and eyes – wear adequate protective gloves and eye/face protection - avoid any sources of ignition – avoid exposing to high temperature during processing - maintain adequate local and general ventilation where product is handled.

Hygiene at work: do not ingest or apply to the skin as such - no smoking - remove contaminated clothing – good personal washing routines should be followed - if at risk of contamination, foods, beverages and other articles of consumption must not be stored or consumed at the work areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container, in a cool, dry & ventilated area away from heat sources & protected from light. Keep air contact to a minimum. Container: to be stored in stainless steel drums, preferably under inert atmosphere (nitrogen), protected from day-light **take note:** the container used during transportation must be considered only as a temporary container and it must not be considered in any case adequate for medium or long term warehousing.

Conditions: stored in a dry, aerated place, away from any heat source and ignition source

Temperature: from 5°C and 20°C.

7.3 Specific end use(s)



Use as odour agent / flavouring agent - the information of this section are not related to the use of the product in combination with any other material or any other process altering its characteristics.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

None

8.2 Exposure Controls

Eye protection		Use safety goggles
Hand protection		Avoid all skin contact. Use chemically resistant gloves if required
Respiratory Equipment	As required. Avoid breathing product vapour.	
Hygiene Measures	Wash hands with soap & water after handling.	
Engineering Measures	Where appropriate, use closed system to transfer and process this material – if appropriate, isolate mixing rooms and other areas. Where this material is used or openly handled - maintain these areas under negative air pressure relative to the rest of the plant.	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Mobile liquid
Colour	Orange/red
Odour	Citrus-mandarin
Relative Density	0.841 to 0.851 @ 20°C
Flash Point (°C)	48
Refractive Index	1.469 to 1.479 @ 20°C
Melting Point (°C)	Not given
Boiling Point (°C)	170 +/- 10 @ 1026 hPa
Vapour Pressure	186.4 Pa @ 25°C
Solubility in Water @20°C	Insoluble in Water
Auto-ignition temperature (°C)	235

9.2 Other information

N/A

SECTION 10: Stability and reactivity

10.1 Reactivity

It presents no significant reactivity hazards, by itself or in contact with water.

10.2 Chemical stability

Stable under normal temperature conditions.

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

Avoid storage temperatures above 25°C.

10.5 Incompatible materials

Avoid contact with strong acids, alkalis and oxidising agents.

10.6 Hazardous decomposition products

Liable to cause smoke & acrid fumes during combustion: carbon monoxide, carbon dioxide & other non-identified organic compounds may be formed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects.

Acute toxicity:	Acute oral toxicity LD50 orl-rat: 5g/kg <i>FCT</i> 60, 695 (1992) Dermal toxicity LD50 skn-rbt: <i>FCT</i> 60, 695 (1992)
Skin corrosion / irritation:	Skin corrosion irritation Hazard Category 2 under EC 1272/2008 guidelines.
Serious eye damage/irritation:	Not classified as irritating (Source: RIFM)
Respiratory or skin sensitisation:	Skin sensitiser Hazard Category 1 under EC 1272/2008 guidelines.
Germ cell mutagenicity:	Not listed as mutagenic
Carcinogenicity:	Not listed as carcinogenic
Reproductive toxicity:	Not listed as reprotoxic
STOT-single exposure:	No data found
STOT-repeated exposure:	No data found
Aspiration hazard:	Aspiration Hazard Category 1 under EC 1272/2008 guidelines.
Other information:	- - -

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SECTION 12: Ecological information

12.1 Toxicity

Hazardous to the aquatic environment - Acute hazard - Hazard Category 1 under EC 1272/2008 guidelines
Hazardous to the aquatic environment - Chronic hazard - Category 1 under EC 1272/2008 guidelines.

12.2 Persistence and degradability

This substance to be considered as a readily biodegradable substance; based on its ready biodegradability, oil does not fulfil the criteria for persistence.

12.3 Bio-accumulative potential

Hazard statement: H410 very toxic to aquatic life with long lasting effects.

12.4 Mobility in soil

This substance is considered as a readily biodegradable NCS. Based on the ready biodegradability of the NCS, simulation tests in surface water, sediment and soil are not required in accordance with column 2 of REACH Annex IX

12.5 Results of PBT and VPVB assessment

Data not found.

12.6 Other adverse effects

N/A

SECTION 13: Disposal considerations

13.1 Waste Treatment Methods

Do not release into the environment. Collect waste into suitable containers and contact hazardous chemical disposal company.

SECTION 14: Transport information

Warning Icon



Proper Shipping Name: EXTRACTS, AROMATIC, LIQUID

UN No. Road: UN 1169

ADR Class: Class 3

Hazard No (ADR): 30

Hazchem Code: 3YE

UN No. SEA: UN 1169

IMDG Class: Class 3

IMDG Pack Gr.: Pk Gp III

EMS: F-E, S-D

UN No. AIR: UN 1169

Air Class: Class 3

Air Pack Gr.: Pk Gp III

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SECTION 15: Regulatory information

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

EU Directives	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 th Dec 2006 Concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 199/45/EC and repealing Council Regulation Council Regulation (EEC) No793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, and 93/105/EEC and 2000/21/EC including amendments.
Statutory Instruments	The Chemicals (Hazard Information and Packaging for Supply Regulations 2009 (S.I. 2009 No 716).
Approved Code of Practice	Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations
Guidance Notes	Workplace Exposure Limits EH40. CHIP for everyone HSG 108.

15.2 Chemical safety assessment

An assessment has not been executed as this is not a hazardous material according to article 31 of REACH 1907/2006.

SECTION 16: Other information

Training instructions: Refer to possible hazard before use of this product.

Abbreviations and acronyms:

MSDS	Material Safety Data Sheet
INCI	International Nomenclature of Cosmetic Ingredients
CAS	Chemical Abstract Service
IMDG	International Maritime Code for Dangerous Goods
ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID	International Carriage of Dangerous Goods by Rail
ICAO	International Civil Aviation Organization
ADN	International Carriage of Dangerous Goods by Inland Waterways
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
Trem Card	Transport Emergency Card
STOT	Specific Target Organ Toxicity
N/A	Not Available
Risk Phrases in full:	R10 Flammable R38 Irritating to skin R41 Risk of serious damage to eyes R43 May cause sensitisation by skin contact R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R65 Harmful, may cause lung damage if swallowed
Safety Phrases in full:	S24 Avoid contact with skin S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical attention S37 Wear suitable gloves S39 Wear eye/face protection S61 Avoid release to the environment. Refer to special instructions / safety data sheets S62 If swallowed, do not induce vomiting: seek medical advice immediately

Complies with REACH guidance for SDS as circulated by ECHA 2011.

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Revisions in this document

Date (DD-MM-YYYY)	Change	Revision Number
30/04/2015	New Issue	0
30/07/2015	Altered description in section 1	1
04/11/2015	Additional information added to Section 1-16	2