

PRODUCT: MANDARIN OIL

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

1.1. Product Identifier

<i>Product identifier</i>	Mandarin Oil
<i>Biological Definition</i>	Citrus Limon Peel Oil is the volatile oil obtained fresh lemon peels.
<i>INCI name</i>	Citrus Reticulata Peel Oil
<i>Synonyms and Trade Names</i>	Mandarin Oil
<i>Botanical name</i>	Citrus Reticulata Blanco
<i>CAS number</i>	8008-31-9
<i>EINECS number</i>	284-521-0
<i>FEMA number</i>	2657
<i>FDA number</i>	182.2
<i>CoE number</i>	142
<i>RIFM number</i>	250

1.2. Relative identified uses of the substance or mixture and uses advised against

Flavours and Fragrances : Use in accordance with good manufacturing and industrial hygiene practices. Not for personal use in this concentration.

1.3. Details of the supplier of the safety data sheet

<i>Company name</i>	Agrumaria Corleone S.p.A.
<i>Company address</i>	Via Salvatore Corleone, 12, 90124 - PALERMO
<i>Contact</i>	Dr.ssa Valeria Corleone - Quality Assurance
<i>E-mail address</i>	vacorleone@agrumariacorleone.com
<i>Company phone</i>	+39 (0) 916213933

1.4. Emergency telephone number

<i>Office hours</i>	+39 (0) 916213933
<i>Out of hours contact</i>	+39 (0) 916213933

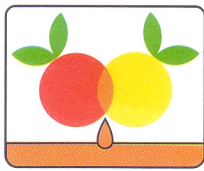
Section 2. Hazard Identification

2.1 Classification of the substance or mixture

The full text for the all hazard statements are displayed in section 16

Classification under Regulation (EC) N. 1272/2008

<i>Class and category of danger</i>	Flammable liquid , category 3 , H226 Aspiration Hazard , category 1 , H304
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Skin irritation/corrosion , category 2 , H315
Skin sensitization , category 1 , H317
Aquatic Acute hazard , category 1 , H400
Aquatic Chronic hazard , category 1 , H411

Classification under Directive 67/548/EEC

Hazard symbols

Xn - Harmful
N - Dangerous for the environment

2.2 Label elements

Label in accordance with (EC) N. 1272/2008

GHS02



GHS08



GHS07



GHS09

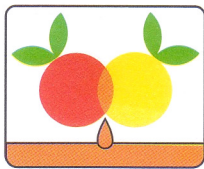


Signal word
Contains

Hazard statement

Precautionary statements

Danger
Limonene, alfa-Pinene, Myrcene, beta-Pinene, Linalool
H226 , flammable liquid and vapour
H304 , May be fatal if swallowed and enters airways
H315 , cause skin irritation
H317 , may causes an allergic skin reaction
H400 , very toxic to aquatic life
H411 , Toxic to aquatic life with long-lasting effects
P210 , keep away from heat, sparks, open flames and hot surface. No smoking
P233 , keep container tightly closed
P240 , Ground/bond container and receiving equipment



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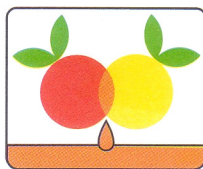
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P241 , Use explosion-proof electrical/ventilating/light equipment
P242 , Use only non-sparking tools
P243 , Take precautionary measures against static discharge
P261 , Avoid breathing dust/fume/gas/mist/vapours/spray
P264 , Wash hands and other contacted skin thoroughly after handling
P272 , Contaminated work clothing should not be allowed out of the workplace
P273 , Avoid release to the environment
P280 , Wear protective gloves/clothing , eye/face protection
P301/310 , IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
P303/361/353 , IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing . Rinse skin with water/shower
P331 , Do NOT induce vomiting
P333/313 , If skin irritation or a rash occurs: Get medical /attention
P362 , Take off contaminated clothing and wash before reuse
P370/378 , In case of fire : Use carbon dioxide, dry chemical, foam for extinction
P391 , Collect spillage
P403/235 , store in well ventilated place . keep cool
P405 , Store locked up
P501 , dispose of contents/container to approved disposal site , in accordance with local regulations

2.3 Other Hazards

PBT or vPvB according to Annex XIII : No additional data available.
Adverse physio-chemical properties : No additional data available.
Adverse effects on human health : No additional data available.



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Section 3. Composition/Information on ingredients

3.1 Substances

<p>< 80.0 % D-Limonene CAS-No: 5989-27-5 EC No.: 227-813-5 Classification (EC 1272/2008): Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317 Asp. Tox. 1 - H304, Aquatic Acute 1 - H400, Aquatic Chronic 1 - H411</p>
<p>< 3.0% α-Pinene CAS-No: 80-56-8 EC No.: 201-291-9 Classification (EC 1272/2008): Flam. Liq. 3 - H226, Skin Irrit. 2 - H315, Skin Sens. 1 - H317 Asp. Tox. 1 - H304</p>
<p>< 2.5 % Myrcene (7-methyl-3-methyleneocta-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</p>
<p>< 0.5 % Decanal CAS-No: 112-31-2 EC No.: 203-957-4 Classification (EC 1272/2008): Skin Irrit. 2 - H315, Aquatic Chronic 3 - H412</p>
<p>< 0.5% Linalool CAS-No: 78-70-6 EC No.: 201-134-4 Classification (EC 1272/2008): Skin Irrit. 2 - H315</p>

Section 4. First-aid measures

4.1 Description of first aid measures

Inhalation

Remove from exposure area to fresh air and immediately obtain medical advice.

Ingestion

Wash mouth out with water and immediately obtain medical advice. DO NOT INDUCE VOMITING !

Skin Contact

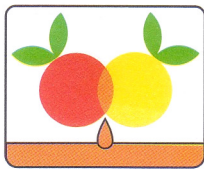
Take off clothing and wash immediately with soapy water. Seek medical advice if irritation persists or there is any sign of skin damage.

Eyes Contact

Rinse thoroughly with water for at least 15 minutes. Remove contact lenses. Seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

May be fatal if swallowed and enters airways



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Causes skin irritation , can cause bloodshot eyes

May cause an allergic skin reaction

For inhalation can cause slight headache

4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical assistance : see section 4.1 for further information

Immediate special treatment : see section 4.1 for further information

First aid specific means : eye wash fountains/safety shower should be available in the work area

Section 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media :

Small fire : Use carbon dioxide , dry chemical , foam . Spray to base of flames.

Large fire : Use water spray or fog. Cool containers with a water jet to prevent pressure build up, autoignition or explosion.

Unsuitable extinguishing media :

Pressurised water jet.

5.2 Special hazards arising from the substance or mixture

Vapour may form an explosive mixture with air. In case of fire, Carbon monoxide , Carbon dioxide, smoke and soot may be liberated.

5.3 Advice for fire fighters

Standard procedure for chemical fires. Spray extinguishing media to base of flames. Wear protective clothing. Avoid inhalation of vapours. Wear suitable respiratory equipment . In case of ignition , cool the endangered containers .

Section 6. Accidental release measures

6.1 Personal precautions , protective equipment and emergency procedures

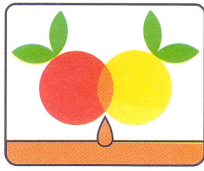
Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Wear protective clothing as described in Section 8 of this safety data sheet.

6.2 Environmental precautions

Do not allow to enter canals, waterways, groundwater , soil .

6.3 Methods and materials for containment and cleaning up

Remove ignition sources and provide adequate ventilation . Soak up with absorbent , inert material , or sand . Wash with water and detergent .



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6.4 Reference to other sections

Please refer to section 4,8 and 13 .

Section 7.Handling and storage

7.1 Precautions for safe handling

Apply good manufacturing practice & industrial hygiene practices, ensuring proper workplace ventilation. Keep original container closed. Avoid contact with skin and eyes. Observe good personal hygiene, and do not eat, drink or smoke whilst handling. Keep away from heat, sparks and open flame. Avoid exposing to high temperatures during processing.

7.2 Conditions for safe storage , including any incompatibilities

To be stored in tightly closed containers, preferably under an inert atmosphere (e.g. nitrogen) with minimum head space protected from daylight. Store in a dry, aerated place (between 0 - 25°C) away from heat and ignition sources.

7.3 Specific end uses

Flavours and Fragrances according to good manufacturing and industrial hygiene practices .

Section 8.Exposure controls/personal protection

8.1 Control parameters

No additional data available

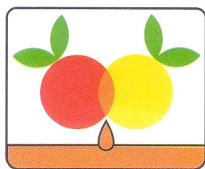
8.2 Exposure controls

Protective Equipment



Process Conditions
Engineering Measures

Provide eyewash station.
Provide adequate ventilation Avoid static discharges in working area.



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Respiratory Equipment

Avoid breathing vapours. Respiratory equipment should not be necessary with adequate

Hand Protection

Avoid all skin contact. Wear chemical resistant gloves (PVC) tested to EN374.

Skin Protection

Wear apron or protective clothing in case of splashes.

Eye Protection

Avoid contact with eyes. Wear approved safety goggles with built in frame tested to EN166.

Other Protection

No additional data available.

Hygiene Measures

Good personal hygiene practices are always advisable, especially when working with chemicals /oils. Keep away from foodstuffs, beverages

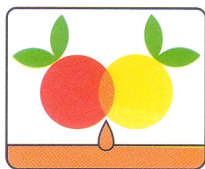
Environmental Exposure Controls

Avoid discharging into drainage water. Only eliminate by authorized companies.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

<i>Appearance</i>	Red liquid
<i>Odour</i>	Characteristic of mandarin
<i>Odour threshold</i>	Not determined
<i>pH</i>	Not applicable
<i>Melting point/Freezing point</i>	No data available
<i>Initial boiling point and range</i>	178.00 °C. @ 760.00 mm Hg
<i>Flash point</i>	49 °C
<i>Evaporation rate (vs H₂O)</i>	< 1
<i>Upper/lower flammability</i>	Not data available
<i>Vapour pressure</i>	0.95 mm/Hg @ 25.00 °C
<i>Vapour density</i>	> 1
<i>Relative density</i>	0,84 - 0.87 gr/ml @ 25.00 °C
<i>Solubility</i>	Not soluble in water
<i>Partition coefficient n-octanol/water</i>	Not data available
<i>Auto-ignition temperature</i>	Not data available
<i>Decomposition temperature</i>	Not data available
<i>Viscosity</i>	Not data available
<i>Explosive properties</i>	Not data available
<i>Oxidizing properties</i>	Not data available



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9.2 Other Information

Not available

Section 10. Stability and reactivity

10.1 Reactivity

Not present important reactivity hazard

10.2 Chemical stability

Stable at normal conditions of storage

10.3 Possibility of hazardous reactions

Not expected at normal conditions of use

10.4 Conditions to avoid

Excessive heat , flames

10.5 Incompatible materials

Acids , Alkalis , oxidising agents

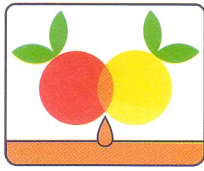
10.6 Hazardous decomposition products

Not expected under normal temperature conditions and recommended use.

Section 11. Toxicological Information

11.1 Information of toxicological effects

<i>Acute Dermal Toxicity LD50 [Rat]</i>	>2000 mg/kg
<i>Acute Oral Toxicity LD50 [Rat]</i>	>5000 mg/kg
<i>Acute Inhalation LD50 [Rat]</i>	>5000 mg/kg
<i>Skin Corrosion/irritation</i>	Causes skin irritation (H315)
<i>Serious eye damages/irritation</i>	Not classified as irritating today (source CSR)
<i>Respiratory or skin sensitisation</i>	May cause an allergic skin reaction (H317)
<i>Germ cell mutagenicity</i>	Negative (sources CSR)
<i>Carcinogenicity</i>	No additional data available
<i>Reproductive toxicity</i>	No tested (sources CSR)
<i>STOT-single exposure</i>	No additional data available
<i>Aspiration hazard</i>	No additional data available
<i>STOT-Repeated exposure</i>	May be fatal if swallowed and enters airways (H304)
<i>Photo-toxicity</i>	No additional data available



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Section 12. Ecological information

12.1 Toxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.2 Persistence and degradability

To be considered as readily biodegradable based on its ready biodegradability. Oil does not fulfil the criteria for persistence.

12.3 Bioaccumulative potential

H411 Toxic to aquatic life with long-lasting effects.

12.4 Mobility in soil

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 column2 of REACH Annex IX.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

Do not discharge into the environment especially not into waterways, sewers and the sea.

Section 13. Disposal considerations

13.1 Waste treatment methods

Dispose in accordance with federal, state or local environmental regulations. Contact a licensed professional waste disposal service to dispose of empty containers, that should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport Information

14.1 UN number

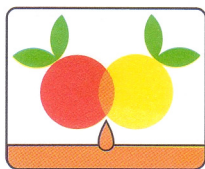
UN No. Road/Sea/Air : UN 1169

14.2 UN Proper Shipping Name

EXTRACTS, AROMATIC, LIQUID

14.3 Transport hazard class

ADR/RID/Class	3 Flammable liquid
IMDG Class	3 Flammable liquid
ICAO Classe/Division	3 Flammable liquid



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Transport Labels



14.4 Packaging group

ADR/RID/AND Packing Group	III
IMDG Packing Group	III
ICAO Packing Group	III

14.5 Environmental hazards

Environmentally hazardous substances/Marine pollutant



14.6 Special precautions for user

This product contains flammables and dangerous for the environment. In case on pouring out, make sure label new packaging accordingly. Reproducing original label with relevant symbols.

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

Not additional data available

Section 15. Regulatory Information

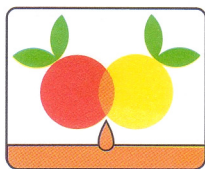
15.1 Safety , health and environmental regulations/legislation specific for the substance or mixture

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).



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EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical Safety assessment

No additional data available

Section 16. Other Information

***Hazard and/or precautionary
Statements in full***

H226 , flammable liquid and vapour
H304 , May be fatal if swallowed and enters
airways
H315 , cause skin irritation
H317 , may causes an allergic skin reaction
H411 , Toxic to aquatic life with long-lasting
effects

Other information

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

Revision Date

19 June 2018

Reason of Revision

1st SDS format

The information provided in this safety data sheet is correct to the best of our knowledge. Furthermore, the information quoted is intended only as guidance for safe handling, use, processing, storage, transportation, disposal and is not to be considered as a warranty or quality specification.