



**AMPHORA AROMATICS
LIMITED**

essential oils, skincare & aromatherapy products

SAFETY DATA SHEET

1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME: Mandarin (Red) Essential oil

SUPPLIER: Amphora Aromatics Limited, Airfield House, Western Drive, Bristol, BS14 0AF

TELEPHONE: +44 (0)117-9087770.

PRODUCT NUMBER: 31

CAS NUMBER: 84926-38-4

EC NUMBER: 284-521-0

INCI: Citrus nobilis peel extract

IDENTIFIED USES: Industrial use: end use of washing and cleaning products; Professional use: washing and cleaning agents; polishes and wax blends; Consumer use: washing and cleaning products; air care products; polishes and wax blends; biocides; tobacco products; cosmetics

BIOLOGICAL DEFINITION: Cold pressed mandarin oil (ex-clementine).

2: HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

CLASSIFICATION (EC 1272/2008):

- PHYSICAL HAZARDS: Flam. Liq. 3 – H226
- HEALTH HAZARDS: Asp. Tox. 1 – H304
Skin Irritation (Cat. 2) – H315
Skin Sensitivity (Cat. 1) – H317
- ENVIRONMENTAL HAZARDS: Aquatic Chronic (Cat 2) – H411

LABEL ELEMENTS

PICTOGRAM:



SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

H226: Flammable liquid and vapour
H304: May be fatal if swallowed and enters airways
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H411: Toxic to aquatic life with long lasting effects



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PRECAUTIONARY STATEMENTS:	<p>P273: Avoid release to the environment P280: Wear protective gloves/clothing/eye-protection/face protection P301 + P310: IF SWALLOWED: Immediately call a poison centre or doctor P331: do NOT induce vomiting P333 + P313: If skin irritated or rash occurs: Get medical advice/attention. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P363: Wash contaminated clothing before reuse P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P403+P235: Store in a well-ventilated place. Keep cool. P501: Dispose of contents/container in accordance with local/regional/national /international regulations. Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.</p>
OTHER HAZARDS:	<p>All essential oils are highly concentrated so have strong aromas and colour that can stain. Mandarin oil contains over 11% Hydrocarbons (98%). Emergency treatment for those who accidentally swallow oils in this category is to seek medical attention immediately and transport sitting in a half-upright position.</p>
CONTAINS:	LIMONENE, ALPHA-PINENE

3: COMPOSITION/INFORMATION ON INGREDIENTS

90 - 96% Limonene

CAS NUMBER: 5989-27-5

EC NUMBER: 227-813-5

CLASSIFICATION (EC 1272/2008):

Flam. Liq. 3, H226
Asp. Tox. 1, H304
Skin Irrit. 2, H315
Skin Sens. 1, H317
Aquatic Acute 1, H400
Aquatic Chronic 1, H410

0.3 – 0.8% alpha-Pinene

CAS NUMBER: 80-56-8

EC NUMBER: 201-291-9

CLASSIFICATION (EC 1272/2008):

Flam. Liq. 3, H226
Acute Tox 4, H302
Asp. Tox. 1, H304
Skin Irrit. 2, H315
Skin Sens. 1, H317
Aquatic Acute, H400



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4: FIRST AID MEASURES

INHALATION:	Supply fresh air and to be sure call for a doctor. In case of unconsciousness, place patient stable in side position for transportation.
INGESTION:	Do not induce vomiting; call for medical help immediately.
SKIN CONTACT:	Immediately wash with water and soap and rinse thoroughly.
EYE CONTACT:	Rinse opened eye for several minutes under running water.
GENERAL INFORMATION:	If health disorder happens, call for medical help immediately. Immediately remove any clothing soiled by the product.
SELF-PROTECTION OF FIRST AIDER:	Use personal protective equipment as described in section 8 if substance is present
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:	Stinging sensation.

5: FIREFIGHTING MEASURES

EXTINGUISHING MEDIA RECOMMENDED:	Suitable extinguishing agents: CO ₂ , alcohol resistant foam
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:	Carbon monoxide (CO) Carbon dioxide (CO ₂) Smoke and soot. Vapours may form explosive mixture with air.
ADVICE FOR FIREFIGHTERS:	Protective equipment: Wear self-contained breathing apparatus and protective suits.
EMERGENCY ACTION CODE:	3[Y] (Foam + BA & Fire Kit)

6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Follow safety measures in chapter "Handling and Storage" and "Exposure controls/personal protection". Wear protective equipment. Keep unprotected persons away. Keep ignition source away, do not smoke and avoid flames.
ENVIRONMENT PRECAUTIONS:	Do not allow to penetrate the ground/soil. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers, surface or ground water.
CLEANING UP METHODS FOR SPILLAGES:	Wipe up little amounts with absorbent material like cloth or pulp. Water and cleansing agent. Absorb with incombustible liquid-binding material (sand, diatomite, universal binders). Dispose of contaminated material as waste according to "disposal considerations".
REFERENCE TO OTHER SECTIONS:	Take Risk, Safety and Precautionary phrases (section 16) into account.

7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING:	Use personal protection equipment as mentioned under "exposure controls/personal protection". Information on fire and explosion protection: Fumes can combine with air to form an explosive mixture. Moistened solids (e.g. cloth, pulp, filter panel, binder) has to be stored hermetically sealed and/or watered and proper disposed. Keep ignition sources away. Do not smoke. Protect against electrostatic charges.
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STORAGE PRECAUTIONS:

Store only in unopened original receptacles. Provide solvent resistant, sealed floor. Store away from oxidizing agents. Keep drums tightly closed. Store dark, dry and under cold temperatures. Storage class: 3
Classification according to Betriebsicherheitsverordnung (BetrichV): Flammable

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

PROTECTIVE EQUIPMENT:



APPROPRIATE ENGINEERING CONTROLS:

Use only in well-ventilated area

EYE/FACE PROTECTION:

Ingredients with limit values that require monitoring at workplace:
CAS: 5989-27-5 (R) – p-mentha-1,8-diene (Limonene)

HAND PROTECTION:

Tightly sealed goggles according to EN 166:2001
Preventive skin protection by use of skin-protection agents is recommended. Use protective gloves. Material of gloves: The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has to be checked prior to the application. Penetration time of glove material: >480 minutes at layer thickness of 0.425 mm (Sol-Vex (37-695) from Ansell). For the permanent contact gloves made of the following materials are suitable: Nitrile rubber, NBR (e.g. following product: Sol-Vex (37-695) from Ansell. As protection from splashes gloves made of the following materials are suitable: PVC gloves.

OTHER SKIN AND BODY PROTECTION:

Protective work clothing

HYGIENE MEASURES:

Use personal protective equipment depending on concentration and amount of hazardous substance. 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 eyes and skin.

RESPIRATORY PROTECTION:

Suitable respiratory protection: filter class A2 (brown colour). Use the rules for application of respiratory protection systems.



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9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Oily liquid
COLOUR:	Orange-reddish
ODOUR:	Characteristic of the outer part of fresh mandarin
FLASH POINT °C PENSKY MARTENS CLOSED	
CUP METHOD:	51
SPECIFIC GRAVITY @ 20°C:	0.840 to 0.855
REFRACTIVE INDEX @ 20°C:	1.4680 to 1.4780
SOLUBILITY:	Soluble in alcohol; in water, 2.6 – 93.066 mg/l at 25°C
BOILING POINT °C:	160°C +/- 20°C at 1016 hPa
BOILING POINT RANGE °C:	162 - 196
VAPOUR PRESSURE @25°C:	208.7 Pa

10: STABILITY AND REACTIVITY

REACTIVITY:	No classification
CHEMICAL STABILITY:	Product is stable under recommended storage conditions.
POSSIBILITY OF HAZARDOUS REACTIONS:	Formation of explosive gas mixture with air possible. In case of unpropitious storing conditions (air admission, heat accumulation) self-ignition is possible for moistened solids (e.g. cloth, pulp, filter panel, binder). Reacts violently with oxidizing agents.
CONDITIONS TO AVOID:	Heating causes vaporisation and formation of ignitable atmosphere is possible.
INCOMPATIBLE MATERIALS:	Oxidising Agents, strong acids, strong alkalis
HAZARDOUS DECOMPOSITION PRODUCTS:	No dangerous decomposition products expected by intended use.

11: TOXICOLOGICAL INFORMATION

ORAL:	Acute oral toxicity Wistar rat LD50 >5000mg/kg bw
EYE:	Not irritating.
INHALATION:	No study available.
SKIN:	Acute dermal toxicity rabbit LD50 >5000mg/kg bw
SKIN IRRITATION:	Moderately irritating.
SKIN SENSITIVITY:	Skin sensitiser (d-limonene), mouse lymph node assay
MUTAGENICITY:	Not mutagenic.
FERTILITY/REPRODUCTION:	NOAEL: maternal toxicity 591 mg/kg bw/day; foetal toxicity 591 mg/kg bw/day

12: ECOLOGICAL INFORMATION

TOXICITY:	
- FISH TOXICITY	Oncorhynchus mykiss, acute toxicity 96h-LL50 >100 mg/l
- ALGAE TOXICITY:	Pseudokirchneriella subcapitata 72hr-EL50 ~ 9.7 mg/l
- DAPHNIA ACUTE TOXICITY:	48h-EL50 = 8.9 mg/L
PERSISTENCE AND DEGRADABILITY:	Regarded as a readily biodegradable NCS.
BIOACCUMULATIVE POTENTIAL:	No bioaccumulation potential based on study results
MOBILITY IN SOIL:	Not determined
RESULTS OF PBT AND vPvB ASSESSMENT:	The substance is not PBT / vPvB



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13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

Recycling is preferred to disposal or burning. Disposal must be made according to official regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. European waste catalogue: e.g. 02 03 03 wastes from solvent extraction. Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning. Packaging that may not be cleansed are 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. European waste catalogue: e.g. 15 02 02 Filter and absorption materials contaminated with hazardous agents.

SPECIAL PRECAUTIONS FOR LANDFILL AND INCINERATION:

Waste is suitable for incineration

14: TRANSPORT INFORMATION

UN NUMBER:

UN1169

PROPER SHIPPING NAME:

Extracts, aromatic, liquid

TRANSPORT HAZARD CLASS(ES):

3



PACKING GROUP:

III

ENVIRONMENTAL HAZARDS:

See section 2



SPECIAL PRECAUTIONS FOR USER:

Dangerous Goods Note

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE:

No data.

15: REGULATORY INFORMATION

STATUTORY INSTRUMENTS:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)



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16: OTHER INFORMATION

Q.C. REQUIREMENTS.

In-line with general product specification. Always satisfy suitability for specific application.

Retest after 12 months.

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding its' correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.