

MATERIAL SAFETY DATA SHEET.

1. IDENTIFICATION OF SUBSTANCE/PREPARATION & COMPANY.

PRODUCT NAME: MANDARIN OIL

SUPPLIER: Norfolk Trading 1 Rigbys Crt Norwich NR2 1NT

Telephone +44 (0)1603 610883.

2. COMPOSITION / INFORMATION ON INGREDIENTS.

DEFINITION/BOTANICAL ORIGIN: The volatile oil obtained by cold-pressing the peels of mandarin oranges, the fruits of *Citrus reticulata* Blanco var. mandarin (fam. *Rutaceae*)

H-No: 3301.19

CAS No: 8008-31-9

Status: natural

CoE No: 142

FEMA: 2657

Additives: none

FDA: §182.20

IFRA: not restricted

Application:

RIFM: monograph

EINECS: not listed

RTECS:

INCI name:

FCCIV: official (cold-pressed)

3. HAZARDS IDENTIFICATION:

R10. Flammable liquid

4. FIRST-AID MEASURES:

INHALATION:

Remove from exposure site to fresh air. Keep at rest. Obtain medical attention.

EYE CONTACT:

Rinse immediately with plenty of water for at least 15 mins. Contact a doctor if symptoms persist.

SKIN CONTACT:

Remove contaminated clothes. Wash thoroughly with soap & water, flush with plenty of water. If irritation persists, seek medical advice.

INGESTION:

Rinse mouth out with water. Seek medical advice **immediately**.

OTHER:

When assessing action take Risk & Safety Phrases into account (Section 15)

5. FIRE FIGHTING MEASURES.

EXTINGUISHING MEDIA

RECOMMENDED:

Use CO₂, Dry Powder or Foam type Extinguishers, spraying extinguishing media to base of flames. Do not use direct water jet on burning material.

SPECIAL MEASURES:

Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke. Wear positive pressure self-contained breathing apparatus & protective clothing.

EXTINGUISHING PROCEDURES:

Closed containers may build up pressure when exposed to heat and should be cooled with water spray.

6. ACCIDENTAL RELEASE MEASURES.

PERSONAL PRECAUTIONS:

Avoid inhalation & direct contact with skin & eyes. Use individual protective equipment (safety glasses, waterproof-boots, suitable protective clothing) in case of major spillages.

ENVIRONMENT PRECAUTIONS:

Keep away from drains, soils, surface & groundwaters.

CLEANING UP METHODS

FOR SPILLAGES:

Remove all potential ignition sources. Contain spilled material. Cover with an inert or non-combustible inorganic absorbent material, sweep

up and remove to an approved disposal container. Observe state, federal & local disposal regulations.

7. HANDLING & STORAGE.

PRECAUTIONS IN HANDLING:	Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene, and do not eat, drink or smoke whilst handling.
STORAGE CONDITIONS:	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.
FIRE PROTECTION:	Keep away from ignition sources & naked flames. Take precautions to avoid static discharges in working area.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION.

RESPIRATORY PROTECTION:	Avoid breathing product vapour. Apply local ventilation where possible.
VENTILATION:	Ensure good ventilation of working area.
HAND PROTECTION:	Avoid all skin contact. Use chemically resistant gloves if required.
EYE PROTECTION:	Use safety glasses.
WORK/HYGIENE PRACTICES:	Wash hands with soap & water after handling.

9. PHYSICAL & CHEMICAL PROPERTIES.

COLOUR:	Reddish-orange
APPEARANCE:	Mobile liquid
ODOUR:	Characteristic of the peel of the fruit
FLASH-POINT °C:	48
SPECIFIC GRAVITY @ 20°C:	0.8400-0.8550
REFRACTIVE INDEX @ 20°C:	1.4700-1.4770

10. STABILITY & REACTIVITY.

REACTIVITY:	It presents no significant reactivity hazards, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidising agents.
DECOMPOSITION:	Liable to cause smoke & acrid fumes during combustion: carbon monoxide, carbon dioxide & other non-identified organic compounds may be formed.

11. TOXICOLOGICAL INFORMATION.

Kligman (1974) found that an 8% solution of mandarin oil caused no irritation or skin sensitisation to humans (report to RIFM). It was also found to be relatively non-toxic (LD₅₀ orl rat >5g/kg). See FCT 1992 (30 suppl.) p69.

12. ECOLOGICAL INFORMATION.

BIODEGRADABILITY:	Data not available
PRECAUTIONS:	Prevent surface contamination of soil, ground & surface water.

13. DISPOSAL CONSIDERATIONS.

Avoid disposing to drainage systems and into the environment. Seek expert advice.

14. TRANSPORT REGULATIONS.

Road (ADR/RID):	Class 3 item 31/c RID No 301; ADR RN N/2301
AIR (IATA/ICAO):	Class 3 Packing group III

SEA (IMDG): 3345 Class 3
CHIP: See section 15

15. REGULATORY INFORMATION. According to Directive 88/379/EEC

HAZARDS:

SYMBOLS:

RISK PHRASES: R10

SAFETY PHRASES: Flammable liquid

16. OTHER INFORMATION.

UN 1169: applies

PACKAGING:

Type	Suitability
Glass	Yes
Lacquer lined steel/tin	Yes
Aluminium	Yes
HPPE	No
F/HDPE	Yes
Other plastic	No

SHELF-LIFE

Min 12 months when stored within advised conditions.

Q.C. REQUIREMENTS.

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

Retest after 6 months.

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