



MATERIAL SAFETY DATA SHEET

1. Identification of Substance/Preparation & Company

PRODUCT NAME: Nutmeg Oil
PRODUCT CODE: NUTMEG
SUPPLIER: Green Valley Aromatherapy Ltd.,
4988 North Island Hwy, Courtenay, BC CANADA V9N 9H9
Emergency Tel No: (250) 334-4836. Contact Person: Kelly Lees

2. Composition / Information on Ingredients

DEFINITION/BOTANICAL ORIGIN: The volatile oil obtained by steam distillation of the dried brown seeds of the tree *Myristica fragrans*, after the shells are broken and discarded.

H-No: 3301.29

CoE No: 296

FDA: 182.20

RIFM: Monograph

INCI name: *Myristica fragrans*

CAS No: 8008-45-5

FEMA: 2793

IFRA: no restrictions

EINECS:

Status:

Additives:

Application:

FCCIV: official

Country of Origin:

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

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

5. Fire Fighting Measures

EXTINGUISHING MEDIA: 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 & ground waters.

CLEAN 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 municipal, federal and local disposal regulations.

7. Handling & Storage

PRECAUTIONS IN HANDLING:	Apply good manufacturing practice & industrial hygiene practices, ensuring proper ventilation. Observe good personal hygiene. 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:	Almost colourless to yellow
APPEARANCE:	Clear mobile liquid
ODOUR:	Spicy, characteristic of nutmeg
FLASH POINT °C:	38
SPECIFIC GRAVITY @ 20°C:	0.860 – 0.910
OPTICAL ROTATION @ 20°C:	-6° to +25°
REFRACTIVE INDEX @ 20°C:	1.473 – 1.488
SOLUBILITY IN 75% ETHANOL @ 20°C:	1 + 4 to 1+5 when fresh; opalescence allowable
SOLUBILITY IN VEGETABLE OILS:	Soluble
SOLUBILITY IN WATER:	Insoluble

Typical Analysis by GLC/GCMS:

CONSTITUENT	PERCENTAGE
Alpha Pinene	0.9
Beta Pinene	12.3
Limonene	11.7
Beta phyllandrene	0.4
Cis Ocimene	1.8
Gamma Terpinene	1.8
Trans Ocimene	1.9
Linalool	38.5
Linalyl acetate	4.9
Alpha Terpineol	2.2
Neryl acetate	1.6
Geranyl acetate	3.3
Nerol	1.1
Geraniol	2.3
Nerolidol	3.6
Farnesol	0.8

10. Stability & Reactivity

REACTIVITY: It presents no significant reactivity hazards, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

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

11. Toxicological Information

LD50 orl-rat: 2.62g/Kg NIOSH 1975. Psychotropic effects with sufficient dosage. Large doses may result in death. E.I. Nutmeg has been found to be non-irritating & non-sensitising to human skin: RIFM Monograph: (1976) FCT 14, 631 (Binder p596). Potential mutagen (from safrole and methyl eugenol content)

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): 3.31c
AIR (IATA/ICAO): Class 3
SEA (IMDG): 3.3/III
CHIP: See section 15

15. Regulatory Information According to Directive 88/379/EEC

HAZARDS: Flammable
SYMBOLS: n/a
RISK PHRASES: R10 Flammable liquid
SAFETY PHRASES: S16 Keep away from sources of ignition: No Smoking

16. Other Information

Cosmetics Directive 7th Amendment: Restrictions may apply. A source of Limonene listed as a sensitiser. Check maximum usage levels for skin care products.

PACKAGING:	TYPE	SUITABILITY
	Glass	Yes
	Lacquer lined steel/tin	Yes
	Aluminums	Yes
	HPPE	No
	F/HDPE	Yes
	Other Plastic	No

SHELF LIFE

Minimum 12 months when stored within advised conditions. Re-test after 12 months then every 3 months, up to a maximum of 36 months.

Q.C REQUIREMENTS

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

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