



MATERIAL SAFETY DATA SHEET

1. Identification of Substance/Preparation & Company

PRODUCT NAME: Citronella Oil
PRODUCT CODE: CITRON
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: By steam distillation of the grass *Cymbopogon nardus*.

H-No: 3301.29.5011	CAS No: 8000-29-1	Status: natural
CoE No: 39	FEMA: 2308	Additives: none
FDA: § 182.20	IFRA: see section 16	Application: aromatherapy, insect repellants
RIFM: monograph	EINECS: 289-753-6	RTECS:
INCI name: <i>Cymbopogon nardus</i>		FCCIV:

3. Hazards Identification

Concentrated product. Do not ingest, use good housekeeping procedures when handling.

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.

Last updated February 17, 2011

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:	Light yellow to brownish yellow
APPEARANCE:	Liquid
ODOUR:	Sweet citral
FLASH POINT °C:	73
SPECIFIC GRAVITY @ 20°C:	0.875 – 0.893
OPTICAL ROTATION @ 20°C:	
REFRACTIVE INDEX @ 20°C:	1.466 – 1.474
SOLUBILITY IN 75% ETHANOL @ 20°C:	
SOLUBILITY IN VEGETABLE OILS:	Soluble
SOLUBILITY IN WATER:	Insoluble

Typical Analysis by GLC/GCMS:

CONSTITUENT	PERCENTAGE
Limonene	3.0
Citronellal	32.5
Citronellyl acetate	3.8
Borneol	2.9
Geranyl acetate	5.1
Citronellol	11.9
Geraniol	22.7
Elemol	3.0
Eugenol	1.1

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: 7200mg/kg (Pharmazie (1959) 14, 435)	
LD50 ipr rat: 713mg/kg	
LD50 orl mus: 4600ml/kg	
LD50 rbt: 4700mg/kg	skn rbt: 500mg/24hr RIFM Monograph (1973) FCT ii, 1067 (cymbopogon nardus only)

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):	n/a
AIR (IATA/ICAO):	n/a
SEA (IMDG):	n/a
CHIP:	See section 15

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

HAZARDS:	n/a
SYMBOLS:	n/a
RISK PHRASES:	n/a
SAFETY PHRASES:	Not classified as dangerous (Directive 88/379/EEC)

16. Other Information

Cosmetics Directive 7th Amendment: Restrictions may apply. A Source of Citral, Geraniol, Citronellool, Lionene and Linalool, listed as sensitizers. 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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