



MATERIAL SAFETY DATA SHEET

1. Identification of Substance/Preparation & Company

PRODUCT NAME: Bergamot Oil FCF
PRODUCT CODE: BERGAMOT
SUPPLIER: Green Valley Aromatherapy Ltd.,
505 Duncan Ave, Courtenay, BC CANADA V9N 2M6
Emergency Tel No: (250) 334-4836. Contact Person: Kelly Lees

2. Composition / Information on Ingredients

DEFINITION/BOTANICAL ORIGIN: Obtained by pressing the peels of the unripe fruits of *Citrus aurantium* L. subsp. *Bergamia* (Risso et Poit), followed by rectification, to produce an oil that is free from furanocoumarins.

H-No: 3301.11.0000	CAS No: 8007-75-8	Status: natural
CoE No: 137	FEMA: 2153	Additives: none
FDA: § 182.20	IFRA: See section 16	Application: aromatherapy, skin care, etc
RIFM:	EINECS: 289-612-9	RTECS:
INCI name: <i>Citrus bergamia</i>		FCCIV: official

3. Hazards Identification

Xi irritant; R10 Flammable

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 Remove all potential ignition sources. Contain spilled material. Cover with an inert or

FOR SPILLAGES: 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: Green, clear

APPEARANCE: Clear mobile liquid

ODOUR: Fresh, citrus fruit

FLASH POINT °C: 55 R10 flammable

SPECIFIC GRAVITY @ 20°C: 0.870 – 0.888

OPTICAL ROTATION @ 20°C: -8° to +2°

REFRACTIVE INDEX @ 20°C: 1.460 – 1.469

SOLUBILITY IN 85% ETHANOL @ 20°C: 1 + 1

Acid Value: 2.0 max

SOLUBILITY IN VEGETABLE OILS: Soluble

SOLUBILITY IN WATER: Insoluble

Typical Analysis by GLC/GCMS:

CONSTITUENT	PERCENTAGE
	1.2
Beta-pinene	7.5
Sabinene	1.0
Limonene	30.7
Beta-phellandrene	0.2
P-cymene	0.7
Gamma-terpinene	3.9
Linalyl acetate	30
Alpha terpinyl acetate	0.25
Neryl acetate	0.5
May also contain: α -Thujene, Myrcene, Octanal, Terpinolene, Linalol, Decyl acetate, Decanal, α -Terpineol, Nerol, Neral, Geranial, β -Caryophyllene, Trans- α Bergamotene, Geranyl acetate, α -Humulene, β -Bisabolene, Nerolidol, Citropene, Bergaptene, Meranzin Isomers.	

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

Not a skin sensitizer. Opdyke D.J. (1979) explained the phototoxic effects of Bergamot oil were due to furanacourmarin content (FCT 11, 1031). LD50: oral rat >5g/Kg.

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 31c
AIR (IATA/ICAO): Class 3 Packing Group III
SEA (IMDG): Code page 3142 3036-1 Class 3.3
CHIP: See section 15

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

HAZARDS: Harmful
SYMBOLS: Xi
RISK PHRASES: R10 Flammable liquid
R36/38 Irritating to eyes and skin
R43 May cause sensitization by skin contact
R65 Harmful, may cause lung damage if swallowed
SAFETY PHRASES: S24/25 Avoid contact with eyes and skin
S16 Keep away from sources of ignition; No Smoking

16. Other Information

Cosmetics Directive 7th Amendment: Restrictions may apply. A source of Citral, Limonene and Linalool, listed as sensitizers. Check maximum usage levels for skin care products.

UN1993: applies

For expressed Bergamot oil: IFRA June 1992: For application to the skin exposed to sunshine, furanocoumarin containing Bergamot oils, are limited to 0.4% in the final product, except for bath preparations, soap & other products which are washed off the skin.

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.

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.