

MATERIAL SAFETY DATA SHEET



1. Identification of Substance/Preparation & Company.

PRODUCT NAME: Bitter orange
PRODUCT CODE: BITTER
SUPPLIER: Green Valley Aromatherapy Ltd., 420 Fitzgerald Avenue, Courtenay, British Columbia, CANADA V9N7N2
 Emergency Tel No: 011-250-334-4836. Emergency Contact Person: Paula Monkman-Shortt

2. Composition / Information on Ingredients.

DEFINITION/BOTANICAL ORIGIN: The volatile oil steam distilled from the fresh peel of *citrus aurantium*.

H-No:	CAS No:	Status: natural
CoE No:	FEMA:	Additives: none
FDA: §	IFRA: See section 16	Application: Aromatherapy, perfumery
RIFM:	EINECS:	RTECS:
INCI name: <i>Citrus aurantium</i>		FCCIV:

3. Hazards Identification.

Concentrated product. Do not ingest. Observe good housekeeping procedures.

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.
RECOMMENDED:
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, 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.

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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:	yellow to orange
APPEARANCE:	clear mobile liquid
ODOUR:	bitter orange
FLASH POINT °C:	46-50
SPECIFIC GRAVITY @ 20°C:	0.845-0.865
REFRACTIVE INDEX @ 20°C:	1.472-1.477
SOLUBILITY IN VEGETABLE OILS:	Soluble
SOLUBILITY IN WATER:	Insoluble

Typical Analysis by GLC/GCMS:

	CONSTITUENT	PERCENTAGE
	Alpha Pinene	0.3
	Beta Pinene	0.2
	Myrcene	1.3
	Limonene	96.7
	Gamma terpinene	0.1
	Octanal	0.1
	Decanal	0.15
	Octonol	0.2
	Linalol	0.2
	Linalylacetate	0.3
	Geranylacetate	0.1
	Nootkatone	0.08

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 and other non-identified organic compounds may be formed.

11. Toxicological Information.

phototoxic

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 3 1/c RID No 301; ADR RN N/2301
AIR (IATA/ICAO):	UN 1993 Class 3.3
SEA (IMDG):	Class 3 UN No: 1993
CHIP:	See section 15

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

HAZARDS: n/a
SYMBOLS: n/a
RISK PHRASES: R10 Flammable liquid
SAFETY PHRASES: n/a



16. Other Information.

PACKAGING:

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

SHELF LIFE

When stored within advised conditions, re-test after 12 months then every 6 months up to a maximum shelf life 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.