

MATERIAL SAFETY DATA SHEET



1. Identification of Substance/Preparation & Company.

PRODUCT NAME: Pine Oil, Silvestris

PRODUCT CODE: Pine

SUPPLIER: Green Valley Aromatherapy Ltd., 420 Fitzgerald Avenue, Courtenay BC, Canada V9N7N2
Emergency Tel No. 011-250-334-4836 Emergency Contact: Paula Monkman-Shortt

2. Composition / Information on Ingredients.

DEFINITION/BOTANICAL ORIGIN: By steam distillation of needles of Scotch pine *Pinus sylvestris* L.

H-No: 3301.29.5050

CAS No: 8023-99-2

Status: natural

CoE No: 341

FEMA: 2906

Additives: none

FDA: 172.51

IFRA: not restricted

Application:

RIFM: monograph

EINECS:

RTECS:

INCI name: *Pinus sylvestris*

FCCIV:

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.

RECOMMENDED:

Avoid vapour inhalation. Keep away from sources of ignition. Do not smoke.

SPECIAL MEASURES:

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 non-combustible inorganic absorbent material, sweep up and remove to an approved disposal container. Observe municipal, federal and local disposal regulations.

FOR SPILLAGES:

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:	Colourless to light yellow
APPEARANCE:	Clear Mobile Liquid.
ODOUR:	Specific
SPECIFIC GRAVITY @ 20°C:	0.8570 - 0.8850
OPTICAL ROTATION @ 20°C:	-4° to + 10°
REFRACTIVE INDEX @ 20°C:	1.4730 to 1.4800
SOLUBILITY IN WATER	Insoluble
SOLUBILITY IN 90% ETHANOL AT 20°C:	Sol 1+ 6 max, sometimes with opalescence.

Typical Analysis by GCMS:

CONSTITUENT	PERCENTAGE
Alpha Pinene	60.2
Camphene	2.9
Beta Pinene	9.5
Delta-3-carene	11.1
Myrcene	3.6
Limonene	4.1
Beta phyllandrene	1.2
Gamma Terpinene	1.1
p-cymene	1.5
Terpinolene	0.9
Bornyl acetate	1.2
Terpinen-4-ol	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 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.

Acute oral LD50: >5g/Kg. Found to non-irritating, non-sensitising, non-phototoxic: see *FCT* 1976 **14** p845.
(Fresh oils show the above properties: it is likely that older pine oils become irritants from the build up of peroxides of delta-3-carene and limonene etc.

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. UN 1993:

ROAD (ADR/RID): Class 3 item 31/c RID NO 301; ADR RN N/2301
AIR (IATA/ICAO): Class 3 Packing group III UN 1993
SEA (IMDG): 3345 Class 3 UN No: 1993
CHIP: See section 15

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

HAZARDS:
SYMBOLS:
RISK PHRASES: R10: Flammable Liquid
SAFETY PHRASES:

16. Other Information.

Conc. % Limits:

PACKAGING:

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

SHELF LIFE

Min. 12 months when stored within advised conditions, re-test after 12 months then at 6 month intervals up to a maximum life of 36 months.

Q.C REQUIREMENTS

In-line with general product specification. Always satisfy suitability for specific application. Re-Test after 6 months.

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