



Trans-verbenol bubble cap

SECTION 1. IDENTIFICATION

Product Identifier	Trans-verbenol bubble cap
Other Means of Identification	N/A
Recommended Use	Pheromone release device for Mountain Pine Beetle, <i>Dendroctonus ponderosae</i>
Restrictions on Use	Not for household usage
Initial Supplier Identifier	Synergy Semiochemicals Corporation 7572 Progress Way, Delta, British Columbia, Canada V4G 1E9 For Information: (604) 454-1122
Emergency Telephone Number	CANUTEC @ 1-(613)-996-6666

SECTION 2. HAZARD IDENTIFICATION

Classification	H226: Flammable liquid and vapor H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation
Label Elements	N/A
Other Hazards	N/A

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration	Common name / Synonyms	Other identifiers
(-)-trans-verbenol	19890-02-9	90%+	N/A	(1S,2R,5S)-4,6,6-trimethylbicyclo[3.1.1]hept-3-en-2-ol

Notes Chemicals are inside a sealed plastic release device.

SECTION 4. FIRST-AID MEASURES

Inhalation	Remove victim from area to fresh air. Seek medical attention if irritation persists.
Skin Contact	Wash area well with soap and warm water. Seek medical attention if irritation persists.
Eye Contact	Wash eyes with water or saline solution for at least 15 minutes and seek medical attention.
Ingestion	Plastic release device is unlikely to be ingested. Give water or milk to dilute and consider medical attention if large quantities ingested. Do not induce vomiting.
Most Important Symptoms and Effects, Acute and Delayed	Irritation to skin and mucous membranes.
Immediate Medical Attention and Special Treatment	Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media	
Suitable Extinguishing Media	Dry powder fire extinguisher, carbon dioxide fire extinguisher.
Unsuitable Extinguishing Media	Water.
Specific Hazards Arising from the Product	Fumes from combusting plastic membrane may be irritant or toxic.
Special Protective Equipment and Precautions for Fire-Fighters	No data

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	If devices are intact, no special precautions required. If devices have been punctured or are leaking, latex or vinyl gloves are recommended.
Methods for Containment and Cleaning Up	Collect devices for disposal in domestic garbage. Any liquid present that has leaked out may be absorbed with vermiculite or other spill kit. Wash area with soap and water .

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Handle with latex or vinyl gloves, wash hands after handling devices.
Conditions for Safe Storage	Store away from children and pets in sealed container in a cool, dry place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL	TWA	STEL
(-)-trans-verbenol	N/A	N/A	N/A	N/A

Notes No data for exposure limits.

Appropriate Engineering Controls N/A

Individual Protection Measures

Eye/Face Protection Safety glasses.

Skin Protection Organic-resistant gloves as appropriate.

Respiratory Protection Ventilated area as required for personal comfort.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear liquid in a plastic "bubble cap" release device.

Odour Characteristic

Odour Threshold N/D

pH N/A

Melting Point and Freezing Point N/D

Initial Boiling Point and Boiling Range N/A

Flash Point >54C

Evaporation Rate N/D

Flammability (solid, gas) Yes

Upper and Lower Flammability or Explosive Limit N/D

Vapour Pressure N/D

Vapour Density (air = 1) >1

Relative Density (water = 1)	N/D
Solubility in Water	Very poorly soluble.
Solubility in Other Liquids	Soluble in alcohol, acetone, ether, petroleum ether.
Partition Coefficient, n-Octanol / Water (Log Kow)	1.6 (est.)
Auto-ignition Temperature	N/D
Decomposition Temperature	N/D
Viscosity	N/D

SECTION 10. STABILITY AND REACTIVITY

Reactivity	N/D
Chemical Stability	N/D
Possibility of Hazardous Reactions	None.
Conditions to Avoid	Strong oxidising agents, chlorinating agents, extreme temperature.
Incompatible Materials	See above.
Hazardous Decomposition Products	Oxides of carbon.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation Skin contact Eye contact Ingestion

Acute Toxicity

LC50	N/D
LD50 (oral)	N/D
LD50 (dermal)	N/D

Notes

Skin Corrosion / Irritation	N/D
Serious Eye Damage / Irritation	N/D
STOT (Specific Target	N/D

**Organ Toxicity) -
Single Exposure**

Aspiration Hazard N/D

STOT (Specific Target N/D

**Organ Toxicity) -
Repeated Exposure**

Respiratory and/or Possible with repeated exposure.
Skin Sensitization

Carcinogenicity

Chemical Name	IARC	ACGIH®	OSHA
(-)-trans-verbenol	No	No	No

Notes

Reproductive Toxicity

Development of N/A
Offspring

Sexual Function and N/A
Fertility

Effects on or via N/A
Lactation

Germ Cell N/A
Mutagenicity

Interactive Effects N/A

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity None.

Persistence and N/D
Degradability

Bioaccumulative None.
Potential

Mobility in Soil N/D

Other Adverse Effects None.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods Dispose of in residential garbage as non-hazardous waste.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
N/D	N/D	N/D	N/D	N/D	N/D

Special Precautions None.

Environmental Hazards N/A

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code N/A

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations N/A

SECTION 16. OTHER INFORMATION

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