


Material Safety Data Sheet

WHMIS 	Protective Clothing	TDG Road / Rail
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Section 1. Product Identification and Uses

Product Name	Multivet Citronella Refills	CI#	Not applicable.
Synonyms	Not available.	DSL	Not available.
Chemical Name	Not applicable.	CAS #	Not applicable.
Chemical Formula	Chemical mixture.	Code	1351-21-011MC
Chemical Family	Hydrocarbon.	Molecular Weight	Not applicable.
Supplier	Multivet International Inc. 17420 Centrale Rue, P.O. Box 651, St. Hyacinthe, Quebec J2T 3L7 PHONE: (450) 778-0244	Manufacturer	Manufactured for: Multivet International Inc.
Material Uses	Prevents dogs from barking.		


Section 2. Hazardous Ingredients

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀
1) Ethanol	64-17-5	2-8	ORAL (LD50) mg/kg: Acute: 7060 (Rat.). DERMAL (LD50) mg/kg: Acute: 20000 (Rabbit). VAPOR (LC50) ppm : Acute: 8000 (Rat.) (4 hour(s)).
2) 1,1,1,2-Tetrafluoroethane	811-97-2	60-100	Not available.

Section 3. Physical Data

Physical State and Appearance	Liquid (Aerosol Concentrate).	Odor	Characteristic.
pH (1% Soln/Water)	Not available.	Taste	Not available.
Odor Threshold	Not available.	Color	Clear Colorless.
Volatility	Not available.		
Evaporation Rate	Not available.		
Melting Point	Not available.		
Boiling Point	78.5°C (173.3°F)		
Density	0.791 (Water = 1)		
Vapor Density	1.59 (Air = 1) based on data for: Ethanol		
Vapor Pressure	43 mm of Hg (@ 20°C) based on data for: Ethanol		
LogK_{ow}	Not available.		
Ionicity (Surface Active Agent)	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Conditions of Instability	No additional remark.		
Dispersion Properties	See solubility in water, methanol, diethyl ether.		
Solubility	Soluble in water, methanol, diethyl ether.		

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Section 4. Fire and Explosion Data


The Product is:	Non-flammable Aerosol.
Auto-ignition Temperature	Not applicable.
Products of Combustion	These products are carbon oxides (CO, CO ₂) and hydrogen fluoride.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Extinguishing Media	Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Avoid spreading burning liquid with water used to cool containers. Self-contained respiratory protection should be provided for firefighters.
Flammability	The flammability of an aerosol by WHMIS definition is determined by its flame-extension or its flashback. The flame-extension of this product is 0 cm. FIRE CODE: Level 1 Aerosol (as per NFPA 30B).
Risks of Explosion	Risks of explosion of the product in presence of mechanical impact: Do NOT subject aerosol cans to impact. Risks of explosion of the product in presence of static discharge: Not available. Container may explode if heated.

Section 5. Reactivity

Stability	The product is stable.
Hazardous Decomposition Products	These products are carbon oxides (CO, CO ₂) and hydrogen fluoride.
Degradability	Not available.
Products of Degradation	Not available. Not available.
Corrosivity	Non-corrosive in presence of glass.
Reactivity	Slightly reactive to reactive with oxidizing agents, metals, alkalis.
Instability Temperature	Not available.
Conditions of Instability	No additional remark.

Section 6. Toxicological Properties


Routes of Entry	Ingestion. Inhalation.
TLV	<p>Ethanol TWA: 1000 (ppm) from ACGIH</p> <p>1,1,1,2-Tetrafluoroethane TWA: 1000 (ppm) TWA: 4240 (mg/m³)</p> <p>Consult local authorities for acceptable exposure limits.</p>

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Toxicity to Animals	<p>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</p> <p>Acute oral toxicity (LD50): > 5000 mg/kg (Rat.) (Ethanol). Acute dermal toxicity (LD50): > 5000 mg/kg (Rabbit) (Ethanol). Acute toxicity of the vapor (LC50): > 5000 ppm (Rat.) (Ethanol). Acute toxicity of the gas (LC50): > 5000 ppm (1,1,1,2-Tetrafluoroethane).</p>
Chronic Effects on Humans	Prolonged or repeated skin contact may lead to dermatitis.
Acute Effects on Humans	<p>EYE CONTACT: May cause irritation, redness and tearing.</p> <p>SKIN CONTACT: May cause irritation, defatting, drying and cracking of skin. Prolonged and repeated contact may lead to dermatitis.</p> <p>INHALATION: Excessive inhalation of vapours may cause nasal and respiratory irritation.</p> <p>INGESTION: May cause gastrointestinal irritation, nausea, vomiting and diarrhea.</p> <p>This product may irritate eyes and skin upon contact.</p>
Synergetic Products (Toxicologically)	Not available.
Irritation/Corrosivity	See acute effects on humans.
Sensitization	Not available.
Carcinogenic Effects	Not available.
Toxic Effects on Reproduction	Not available.
Teratogenic Effects	Not available.
Mutagenic Effects	Not available.

Section 7. Preventive Measures

Small Spill and Leak	Absorb with an inert DRY material and place in an appropriate waste disposal container.
Personal Protective Equipment	Avoid contact with eyes.
Large Spill and Leak	Not applicable for aerosol containers.
Protective Clothing	Not applicable for aerosol containers.
Engineering Controls	Use under well-ventilated conditions.
Precautions	Contents under pressure. Container may explode if heated. Keep out of reach of children.
Storage	Store in a cool, dry place. Do not place in hot water or near radiators, stoves or other sources of heat. Do not puncture, incinerate or store the container at temperatures over 50°C or in direct sunlight.
Handling	Avoid breathing spray mists. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with eyes. Avoid prolonged contact with skin. After handling, always wash hands thoroughly with soap and water.
Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. Do not dispose in sewers. When container is empty, press button to release all pressure, then dispose of in garbage can.
Special Shipping Information	None.

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Section 8. First Aid

Eye Contact	Flush eyes with plenty of running water for at least 15 minutes, lifting upper and lower lids, occasionally. Get medical attention.
Skin Contact	Wash the affected areas with soap and water. If irritation persists, seek medical attention. Remove contaminated clothing and wash before reuse.
Hazardous Skin Contact	No additional information.
Slight Inhalation	Remove affected person to fresh air. If breathing is difficult, administer oxygen. If breathing stops give artificial respiration. Get medical attention.
Hazardous Inhalation	No additional information.
Slight Ingestion	If swallowed, call physician or poison control centre immediately. DO NOT induce vomiting. Rinse mouth with water. Aspiration of material into lungs due to vomiting may cause chemical pneumonitis which can be fatal.
Hazardous Ingestion	No additional information.

Section 9. MSDS Preparation

References	Not available.
No additional remark.	
Validated by Regulatory Affairs Dept. on 4/4/2001.	Verified by Regulatory Affairs Dept..
	Printed 1/9/2002.

Emergency Phone: (905) 677-1948

Responsible Name/ Telephone No.
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Classification

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	Not applicable.	
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