

MATERIAL SAFETY DATA SHEET

Emergency Phone: Chemtrec 800-424-9300

Effective Date: June 15, 2011

Replaces MSDS of December 2, 2010

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Willowood Ethofumesate 4SC

DESCRIPTION: A liquid herbicide.

EPA Reg. No. 87290-1

COMPANY IDENTIFICATION:

Willowood, LLC

1600 NW Garden Valley, Blvd. #120

Roseburg, OR 97471

Tel: 877-679-9963

24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

2. HAZARD IDENTIFICATION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: Harmful if swallowed or inhaled. Avoid breathing vapor or spray mist.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>Chemical Name</u>	<u>Chemical Formula</u>	<u>CAS Number</u>	<u>Composition</u>
Ethofumesate	2-ethoxy-2, 3-dihydr o-3, 3-dimethyl-5-benzofuranyl methanesulfonate	C ₁₃ H ₁₈ O ₅ S	26225-79-6	42.0%

4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

IF ON SKIN OR CLOTHING: Call a poison control center or doctor for treatment advice. Take off contaminated clothing. Rinse skin immediately with water for 15-20 minutes.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have the exposed person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move the exposed person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

5. FIRE-FIGHTING MEASURES

Flash point (PMA-4): Not Applicable

Flammable Limits (LFL-UFL): N/A

Fire and Explosion Hazards: Can burn in fire releasing irritating and toxic gasses due to thermal decomposition or combustion.

Means of Extinction: Use foam, dry chemical, carbon dioxide or water spray.

Fire Fighting Instructions: Evacuate area and fight fire upwind a safe distance. Keep unnecessary people away and deny entry to hazard area. Use as little water as possible and use spray or fog and avoid heavy hose streams to prevent runoff. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Foam or dry chemical extinguishing systems are preferred to prevent environmental damage due to runoff.

Firefighting Equipment: Self-contained breathing apparatus with full face piece and full bunker gear.

Hazardous Combustion Products: Carbon monoxide and dioxide, hydrogen chloride and cyanide, and nitrogen oxides.

NFPA Ratings: Health – 1 / Flammability – 0 / Instability – 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately observing the precautions in Section 8 of this MSDS. Ventilate spill area and avoid breathing vapors. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

LARGE SPILL: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

7. HANDLING AND STORAGE

Avoid contact with skin, eyes and clothing. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Store above 32°F. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, water, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: To avoid exceeding exposure limits, handle only with adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Chemical-resistant gloves such as nitrile, butyl, neoprene, and/or barrier laminate. Long-sleeved shirt, long pants and shoes plus socks.

General: Remove clothing / PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Creamy white liquid
Odor: Faint organic sulfur odor
pH: Data not available
Density: 1.14 g/ml (9.3 lbs/gal) for active ingredient
Boiling Point: Data not available
Solubility in Water: 110 mg / L for active ingredient

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Freezing temperatures.
CHEMICAL STABILITY: Stable under normal use and storage conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Data not available.
INCOMPATIBILITY WITH OTHER MATERIALS: None known.
POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Oral LD₅₀ (rat): > 2,100 mg/kg

ACUTE DERMAL TOXICITY

Dermal LD₅₀ (rat): > 4,100 mg/kg

ACUTE INHALATION TOXICITY

Inhalation LC₅₀ (rat): Data not available.

EYE IRRITATION

Rabbit – Data not available.

SKIN IRRITATION

Rabbit – Causes mild skin irritation

SENSITIZATION

Guinea Pig – Not a Contact Sensitizer

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGENICITY:

ACGIH: Not listed

IARC: Not listed

NTP: Not listed

OSHA: Not listed

MUTAGENIC DATA: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Non refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

Containers 5 gallons or less: Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows - Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Containers larger than 5 gallons: Triple rinse as follows - Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Not Regulated by DOT

MARINE POLLUTANT: No

15. REGULATORY INFORMATION

FIFRA –

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III – Section 302 Extremely Hazardous Substances

Not Listed

SARA Title III – Section 311/312 Hazard Categories

Immediate

SARA Title III – Section 312 Threshold Planning Quantity

N/A

SARA Title III – Section 313 Reportable Ingredients

None

CERCLA –

None Listed

CALIFORNIA PROP 65 STATUS –

This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

National Fire Protection Association (NFPA) Hazardous Materials Identification System (HMIS)

NFPA		HMIS	
	0 Least		
1 Health	1 Slight	1 Health	
0 Flammability	2 Moderate	0 Flammability	
0 Instability	3 High	0 Reactivity	
None Other	4 Severe	C Other	

RISK PHRASES: R10, Flammable; R20, Harmful by inhalation; R21, Harmful in contact with skin; R22, harmful if swallowed; R36, Irritating to eyes; R51, Toxic to aquatic organisms; and R67, Vapors may cause drowsiness and dizziness.

SAFETY PHRASES: S2, keep out of reach of children; S9, Keep container in a well-ventilated place; S23, Do not breathe vapors; S24, Avoid contact with skin; S25, Avoid contact with eye; S36, Wear suitable protective clothing; S37, Wear suitable gloves; S38, In case of insufficient ventilation, wear suitable respiratory equipment; S39, Wear eye/face protection; and S62, If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

REASON FOR ISSUE: New International ANSI Z400 format.

APPROVAL DATE: 06/15/2011

PREPARED BY: Jack Firkins

REVIEWED BY: Jack Firkins

Abbreviations

AICS	Australian Inventory of Chemical Substances
CAS#	Chemical Abstract Service Number
°C	Celsius temperature scale
CI	China
DSL	Canada Domestic Substances List
ECL	Korean Existing Chemicals List
EEC	European Economic Commission
ENCS	Japanese existing Chemical List
EINECS #	European Inventory of Existing Chemical Substance Number
EU	European Union
(Israel)	2001 proposed list of chemical substances to be regulated under Israel Hazardous Substances Law and Regulations List of 1993
MAC	Netherlands
MAK	Germany
MITI	Ministry of International Trade and Industry
NA	Not Applicable
ND	Not Determined
NE	Not Established
PICCS	Philippines
PPE	Personal Protective Equipment
Prop	Proprietary
SWISS	Giftliste 1 and Inventory of Notified New Substances
TSCA	Toxic Substances Control Act

(Taiwan) List of Toxic Chemical Substances regulated under Taiwan Toxic
Chemical Substances Control Act of November 26, 1986
UK United Kingdom
USA United States of America

Disclaimer:

This information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Willowood LLC be liable for any claims, losses or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, how so ever arising, even if company has been advised of the possibility of such damages