

MATERIAL SAFETY DATA SHEET

Emergency Phone: CHEMTREC 800-424-9300
Replaces MSDS of September 15, 2010

Effective Date: March 4, 2011

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Willowood Frostguard

COMPANY IDENTIFICATION:

Willowood LLC

1600 NW Garden Valley Blvd., Suite 130

Roseburg, Oregon 97471

Tel: 877-679-9963

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

2. COMPOSITION, INFORMATION OF INGREDIENTS:

Components

Name	CAS #.	EINECS #	Average % by Weight
Cryoprotectant materials	Proprietary	NE	60
Inert ingredients	Proprietary	NE	40

3. HAZARDS IDENTIFICATION SUMMARY:

EMERGENCY OVERVIEW: CAUTION! This product is a moderate eye irritant, may irritate the skin, irritate the respiratory system and if swallowed cause irritation. Keep out of reach of children.

POTENTIAL HEALTH EFFECTS:

ROUTES OF ENTRY: Eye irritation, skin absorption and inhalation.

INHALATION: Overexposure to the vapour or mist may cause upper respiratory irritation.

SKIN CONTACT: Slightly irritating.

EYE CONTACT: Vapour or mist may cause redness and tearing to the eyes.

INGESTION: Harmful if swallowed.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: May cause upper respiratory irritation, cause gastric irritation, and sensitive eyes.

CARCINOGENICITY: Not listed by NTP or IARC. Not regulated as a carcinogen by OSHA.

4. FIRST AID MEASURES:

INHALATION: Move to fresh air free from risk of further exposure. If person not breathing call 9-1-1, then apply rescue breathing. Seek medical attention as soon as possible.

EYE CONTACT: Flush with clean, lukewarm water raising upper and lower eyelids at low pressure for 15 minutes. Remove contact lenses, if present, after the first five minutes and continue to rinse the eyes. Seek medical attention if no relief.

SKIN CONTACT: Rinse area with clean water for 15-20 minutes. Remove contaminated clothing. Call poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. DO NOT INDUCE VOMITING. Lower the head when person is vomiting to minimize entry into throat and lungs.

5. FIRE FIGHTING MEASURES:

FLASHPOINT AND METHOD: > 200 °F (. 75.4 °C)

EXTINGUISHING METHOD: Use dry chemicals, carbon dioxide and foam.

FIRE OR EXPLOSION HAZARDS: This material under complete combustion will form oxides of carbon, nitrogen and phosphorus.

SPECIAL FIREFIGHTING PROCEDURES: Keep upwind of fire. Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK PROCEDURES: Wear PPE. Avoid breathing vapour or mist. Isolate the area and prevent material from getting into waterways.

Absorb with vermiculite, sand or other inert absorbent and place the collected material in a closed container.

Finish cleaning the area with small amounts of soap and water on the spill area.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE: Keep containers tightly closed above freezing. Keep in cool dry area.

SPECIAL SENSITIVITY: Avoid contact with skin and eyes, wear PPE in section 8.

HANDLING AND STORAGE PRECAUTIONS: Avoid breathing the vapour or mist. Use normal safety procedures and good personal hygiene. Wash thoroughly after use and before eating, drinking, chewing gum or using tobacco.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION:

EYE PROTECTION: Use safety glasses or goggles, there is potential for vapour or mist exposure to cause injury to the eyes.

SKIN PROTECTION: Wear chemical resistant glove (Nitrile.) Wear long sleeve shirts, long pants and shoes and socks.

RESPIRATORY PROTECTION: Wear respirator if the airborne conditions result in an aerosol forming.

ENGINEERING CONTROLS: Provide adequate ventilation when product is used. Eyewash and shower should be provided in mixing and loading areas.

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM: Liquid.

ODOUR: Very little odour.

FLASH POINT: > 200 °F (75.4 °C)

COLOUR: Clear to amber.

SOLUBILITY IN WATER: Miscible.

SPECIFIC GRAVITY (water=1): > 1 @
68 °F (20 °C.)

10. STABILITY AND REACTIVITY:

STABILITY: This product is stable material under normal conditions of storage and handling.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLES: Avoid temperatures above 100°F (37.7°C.) Strong oxidisers, and bases.

DECOMPOSITION PRODUCTS: Product will burn and the products of complete combustion are oxides of carbon, nitrogen and phosphorus.

11. TOXICOLOGICAL INFORMATION:

Moderate eye irritant and mild skin irritant.

The significant routes of exposure are eyes, skin, ingestion and inhalation.

12. ECOLOGICAL INFORMATION:

Product may be toxic to some aquatic organisms.

13. DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD: This material is a liquid, wear vapour or mist respirator and other required PPE to dispose of the material. Dispose according to the regulations of local, state and Federal regulatory agencies.

14. TRANSPORT INFORMATION:

US DOT (ground) SHIPPING NAME: Not regulated by ground shipment, per 49 CFR Part 172.101(12)(iv).

IATA (air) SHIPPING NAME: Not regulated by IATA.

IMO (water)SHIPPING NAME: Not regulated by IMO.

15. REGULATORY INFORMATION:

OSHA STATUS: This product is not hazardous under the OSHA criteria.

TSCA STATUS: All components are exempted.

CERCLA REPORTABLE QUANTITY: None.

CALIFORNIA PROPOSITION 65: Not regulated under California Proposition 65.

RCRA STATUS: Not regulated under RCRA

SARA 311/312 HAZARD NOTIFICATION/REPORTING

IMMEDIATE Y **FIRE** Y **SUDDEN RELEASE OF PRESSURE** N
DELAYED N **REACTIVE** N

SARA TITLE III: None.

SECTION 302 EXTREMELY HAZARDOUS: None.

SECTION 311/312 HAZARD CATEGORIES: None.

SECTION 313 TOXIC CHEMICALS: None.

16. OTHER INFORMATION:

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

NFPA		HMIS	
	0 Least		
1 Health	1 Slight	1	Health
1 Flammability	2 Moderate	1	Flammability
0 Instability	3 High	0	Reactivity
	4 Severe	H	PPE

RISK PHRASES: R20, Harmful by inhalation; R21, Harmful in contact with skin; R22, harmful if swallowed; R36, Irritating to eyes; and R67, Vapours 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 vapours; 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.

SECTION XVI – ABBREVIATIONS /DISCLAIMER

REASON FOR ISSUE: New international ANSI Z400 format.

APPROVAL DATE: 03/07/2011

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Abbreviations:

AICS	Australian Inventory of Chemical Substances
CAS #	Chemical Abstract Service Number
°C	Celsius temperature scale
CI	China
DSL	Canada
ECL	Korean Existing Chemicals List
EEC	European Economic Commission
ENCS	Japanese Existing and New Chemical List
EINECS #	European Inventory of Existing Chemical Substances Number
EU	European Union °F
(Israel)	2001 proposed list of chemical substances to be regulated under Israel Hazardous Substances Law and Regulations List
MAC	Netherlands
MAK	Germany
MITI	Ministry of International trade and Industry
NA	Not applicable
MITI	Japan
ND	Not determined
NE	None established
PICCS	Philippines
PPE	Personal Protective Equipment
Prop.	Proprietary
SWISS	Giftliste 1
SWISS	inventory of Notified New Substances
TSCA	Toxic Substance Control Act
(Taiwan)	List of Toxic Chemical Substances regulated under Taiwan Toxic Chemical Substances Control Act of 1086
UK	United Kingdom
USA	United States

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