

MATERIAL SAFETY DATA SHEET

Emergency Phone: CHEMTREC 800-424-9300

Effective Date: June 15, 2014

New

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WILLOWOOD 2,4-D Amine

CHEMICAL NAME: Dimethylamine salt of 2,4-Dichlorophenoxyacetic Acid

CHEMICAL FAMILY: Phenoxy Herbicide

EPA REGISTRATION NUMBER: 87290-XX

COMPANY IDENTIFICATION:

Willowood, LLC

1600 NW Garden Valley Blvd., Suite 120

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

CHEMICAL NAME	CAS NUMBER	EINECS #	%
Dimethylamine salt of 2,4-D (2,4-Dichlorophenoxyacetic Acid)	2008-39-1		47.2%
Inert Ingredients			52.8%

3. HAZARDS IDENTIFICATION SUMMARY:

NOTE: Please refer to Section 11 for detailed toxicological information.

EMERGENCY OVERVIEW: CAUTION! The product is an eye irritant and may cause moderate corneal irritation. 2,4-D Amine can be harmful in contact with the skin. It is an environmentally hazardous substance. The product can be harmful if swallowed or inhaled. Avoid breathing the spray mist. This herbicide is toxic to some aquatic organisms.

PHYSICAL STATE: Suspended concentrate liquid.

APPEARANCE: Clear amber to brown liquid solution.

ROUTE OF EXPOSURE: Inhalation, Skin Contact, Skin Absorption, Eye Contact.

IMMEDIATE EFFECTS:

Eye: May cause substantial and permanent eye injury. Do not get in eyes.

Skin: May be harmful if absorbed through the skin. May cause skin irritation.

Avoid contact with the skin and clothing.

Ingestion: Harmful if swallowed. Do not take internally. May cause gastrointestinal irritation with nausea, vomiting, or diarrhea.

Inhalation: Harmful if inhaled. Avoid breathing the spray mist.

CHRONIC OR DELAYED LONG-TERM: There is no evidence 2,4-D Amine is a human carcinogen.

Medical Conditions Aggravated by Exposure: May cause upper respiratory and eye irritation.

4. FIRST AID MEASURES:

GENERAL: Have the product container or label with you when calling a poison control center or doctor or going for treatment.

INHALATION: Move the exposed person to fresh air free from risk of further exposure. If the person is not breathing call 9-1-1, then apply rescue breathing and 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. 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.

NOTE to Physician: This product has low oral dermal and inhalation toxicity. There is no specific antidote. Use appropriate supportive and symptomatic treatment as indicated by the patient's condition.

5. FIRE FIGHTING MEASURES:

FLASH POINT: Not Flammable

FIRE AND EXPLOSION HAZARDS: Not Determined

SUITABLE EXTINGUISHING MEDIA: Use dry chemicals, carbon dioxide, foam or water spray.

FIRE FIGHTING INSTRUCTIONS: Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Dike area to prevent runoff and contamination of water sources. Equipment or materials involved in pesticide fires may become contaminated.

6. ACCIDENTAL RELEASE MEASURES:

PERSONAL PRECAUTIONS: Wear PPE per section 8. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

METHODS FOR CLEANING UP: Avoid breathing the mist. Absorb the spilled material with inert absorbent such as vermiculite. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

HANDLING AND STORAGE PRECAUTIONS: Use normal safety procedures and good personal hygiene. Wash thoroughly after using this product, especially before eating, drinking, chewing gum, or using tobacco.

ADDITIONAL ADVICE: Do not allow this product to enter streams, sewers, or other waterways.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE: Keep containers tightly closed. Avoid high temperatures. Keep in cool dry area above 32 °F (0°C) and below 100 °F. (38°C.) Store in a cool well-ventilated area.

SPECIAL SENSITIVITY: Avoid contact with skin and eyes; wear PPE per section 8.

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

8. EXPOSURE CONTROLS, PERSONAL PROTECTION:

EYE PROTECTION: Wear safety glasses or goggles. There is potential for mist exposure to cause injury to the eyes.

SKIN PROTECTION: Wear chemically resistant gloves (e.g. nitrile, rubber, butyl, viton, or neoprene.) Wear a long sleeved shirt, long pants, shoes, and socks.

RESPIRATORY PROTECTION: Wear an OSHA approved respirator if the airborne conditions result in a mist forming.

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

9. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM: Transparent liquid.

COLOR: Amber to brown.

ODOR: Moderate fishy amine odor.

pH: 9.05

SOLUBILITY IN WATER: Soluble.

SPECIFIC GRAVITY (water=1): 1.16 g/cm³ @ 68 °F (20 °C.)

10. STABILITY AND REACTIVITY:

STABILITY: This product is stable material under normal conditions of storage and handling. Avoid high temperatures or freezing.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBLES: Avoid contact with strong oxidizing agents, such as chlorates and nitrates.

DECOMPOSITION PRODUCTS: The products of complete combustion are hydrogen chloride and oxides of carbon and nitrogen.

11. TOXICOLOGICAL INFORMATION:

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

Oral LD₅₀ (rat) = > 1000 mg/kg Dermal LD₅₀ (rabbit) = >2000 mg/kg LC₅₀ (rat) = >2.0 mg/L (4-hr test)

There is no evidence 2,4-D amine is a human carcinogen.

12. ECOLOGICAL INFORMATION:

Product is of low toxicity to fish, and estuarine and marine invertebrates. Do not allow product to get in waterways. The product is of low toxicity to birds.

Product has high potential to leach through the soil.

13. DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD: Refer to product label. This material is a liquid. Wear an OSHA approved respirator and other required PPE to dispose of the material according to label instructions for pesticide and container disposal. Dispose of in accordance with all local, state, and federal regulations.

14. TRANSPORT INFORMATION:

DOT SHIPPING DESCRIPTION: Not regulated for ground transportation in containers of less than 30 gallons. Proper shipping name: Environmentally Hazardous Substance, liquid, N.O.S. (2,4-D salts and esters) UN Number 3082, DG Class 9, Packing Group III in quantities greater than 30 gallons

IATA (air) SHIPPING NAME: Environmentally Hazardous Substance, liquid, N.O.S. (2,4-D salts and esters;) UN Number 3082, DG Class 9, Packing Group III

IMO (water) SHIPPING NAME Environmentally Hazardous Substance, liquid, N.O.S. (2,4-salts and esters) UN Number 3082, DG Class 9, Packing Group III. Marine Pollutant.

15. REGULATORY INFORMATION:

OSHA STATUS: Hazardous Chemical

TSCA STATUS: Exempt from TSCA. Regulated under FIFRA

CERCLA REPORTABLE QUANTITY: 2,4-Dichlorophenoxyacetic acid dimethylamine salt. (100 lb.)

CALIFORNIA PROPOSITION 65: Not listed.

RCRA STATUS: Not regulated under RCRA

SARA 311/312 HAZARD NOTIFICATION

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

FIRE N **REACTIVE** N

SARA TITLE III: None.

SECTION 302 REPORTABLE QUANTITY: None.

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard.

SECTION 313 TOXIC CHEMICALS: 2,4-D.

RIGHT TO KNOW: None

16. OTHER INFORMATION:**National Fire Protection Association (NFPA)****Hazardous Materials Identification System (HMIS)**

NFPA		HMIS
	0 Least	
3 Health	1 Slight	3 Health
0 Flammability	2 Moderate	0 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; 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.

APPROVAL DATE: 6/15/2014

PREPARED BY: Jack Firkins

ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS#	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
°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
FIFRA (Israel)	Federal Insecticide, Fungicide, and Rodenticide Act 2001 proposed list of chemical substances to be regulated under Israel Hazardous Substances Law and Regulations List of 1993
IARC	International Agency for Research on Cancer
MAC	Netherlands
MAK	Germany
MITI	Ministry of International Trade and Industry
NA	Not Applicable
ND	Not Determined
NE	Not Established
NIOSH	National Institute of Occupational Safety and Health
NPIC	National Pesticide Information Center
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Act
PICCS	Philippines
PPE	Personal Protective Equipment
Prop	Proprietary
SARA	Superfund Amendments and Reauthorization Act
SWISS	Giftliste 1 and Inventory of Notified New Substances
TSCA (Taiwan)	Toxic Substances Control Act 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

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