

MATERIAL SAFETY DATA SHEET

Phoenix Environmental Care, LLC
P.O. Box 370
Valdosta, GA 31603-0370

General Information No. 229-245-8845
In Case of Emergency, Call
PROSAR: 888-875-1724
CHEMTREC: 800-424-9300

I. PRODUCT IDENTIFICATION

Product name: TernStyle
Active Ingredient: 2,4-D DMA (46.8%)
Chemical Name: Dimethylamine salt of 2,4-dichlorophenoxyacetic acid

II. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS number	% by Wt.	OSHA PEL	ACGIH TLV
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid	2008-39-1	46.8%	10 mg/m ³	10 mg/m ³

III. HAZARDS IDENTIFICATION

As defined by OSHA Hazard Communication Standard (29 CFR 1910.1200).

HEALTH HAZARDS

Corrosive and severe eye irritant with permanent eye injury possible including blindness. Harmful if swallowed or absorbed through skin.

PHYSICAL OR CHEMICAL HAZARDS

May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS

2,4-D DMA is toxic to some aquatic organisms. This pesticide is toxic to fish and aquatic invertebrates. 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 washwaters or rinsate. Apply this product only as directed on label.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Most cases of groundwater contamination involving phenoxy herbicides such as TernStyle have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

HMIS Hazard Ratings:

Health 3

Flammability 1

Physical Hazard 1

Where:

4 – severe

3 – serious

2 – moderate

1 – slight

0 – minimal

IV. FIRST AID MEASURES

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 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 on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

V. FIRE FIGHTING MEASURES

Flash point (method): Not combustible.

Flammable limits (LFL-UFL): LFL: Not available

UFL: Not available

Extinguishing Media: Use foam, dry chemical, or water spray when fighting fires involving this material.

Fire Fighting Instructions: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff

Fire Fighting Equipment: Self-contained breathing apparatus with full facepiece and protective clothing.

Hazardous Combustion

Products: Hydrogen chloride, oxides of nitrogen.

VI. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Wear appropriate personal protection equipment (See Section VIII, Exposure Controls/Personal Protection).

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.

VII. HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

Handling: Use only in a well-ventilated area. Do not reuse this container. Wear appropriate safety equipment when handling.

Storage: Store in original containers only. Keep away from drinking water, food, or feed. Store away from heat (> 100 °F) and keep from freezing (< 35 °F).

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits (8 hour TWA, ppm): Refer to Section III of this MSDS.

Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, natural rubber, neoprene, or nitrile rubber. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

Long-sleeved shirt and long pants,

Shoes and socks,

Chemical resistant gloves (except for pilots),

Chemical resistant apron when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate,

Wear protective eyewear (goggles or face shield).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Requirements:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear amber to brown liquid
Odor:	Pungent, amine-like
pH:	7.5-9.5
Specific Gravity:	1.12 – 1.19 g/mL (9.40-9.95 lbs/gal)
Vapor Pressure:	16.5 mm Hg at 20 °C
Vapor Density:	< 1 (water vapor)
Water Solubility:	Soluble

X. STABILITY AND REACTIVITY

Chemical Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	Avoid excessive heat.
Incompatibility:	Oxidizers and strong acids.
Hazardous Decomposition Products:	Thermal decomposition may release toxic gases such as HCl.
Hazardous Polymerization:	Product will not undergo polymerization.

XI. TOXICOLOGICAL INFORMATION

Acute Toxicity:	
Oral LD ₅₀ (rat):	> 1000 mg/Kg
Dermal LD ₅₀ (rabbit):	> 1250 mg/Kg
Inhalation LC ₅₀ (rat):	> 3.0 mg/L
Eye Irritation (rabbit):	Severe
Skin Irritation (rabbit):	Slight
Sensitization (guinea pig):	Non-sensitizer
Carcinogen Status:	
OSHA	Not listed
NTP	Not listed
IARC	2B
Mutagenic Data:	Not known to be mutagenic.

XII. ECOLOGICAL INFORMATION

Environmental Summary

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Data indicate that 2,4-D DMA dissociates to the parent acid in the environment. 2,4-D acid has an environmental half-life of a few days to a few weeks depending on local conditions and weather.

Fish Toxicity (Acid Technical):	96 hour LC ₅₀ , Rainbow trout: 524 mg/L 96 hour LC ₅₀ , Bluegill: 250 mg/L
Avian Toxicity (Acid Technical):	Oral LD ₅₀ , Bobwhite quail: 500 mg/Kg Dietary LC ₅₀ , mallard ducks: >5500 mg/Kg
Bee Toxicity:	Unknown.

XIII. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

Disposal: Pesticide wastes are toxic. Dispose of in accordance with applicable federal, state and local laws and regulations at an approved facility.

Container Disposal: Do not reuse container. Triple rinse (or equivalent). Then offer for recycling, reconditioning, or puncture and siphon off in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

XIV. TRANSPORT INFORMATION

DOT Shipping Description:	Containers < 30 gallons: Not regulated by DOT. Containers ≥ 30 gallons: UN3082, Environmentally hazardous substances, liquid, NOS, (2,4-D dimethylamine), 9, PG III, RQ (2,4-D salt)
DOT Hazard Class:	Class 9
UN Number:	3082
DOT Packing Group:	PG III
DOT Primary/Secondary label:	None
DOT Primary/Secondary Placard:	Class 9 (≥ 119 gallons)
DOT Emergency Response Guide No.:	171

XV. 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.

CERCLA Reportable Quantity: 100 lbs. 2,4-D acid (approximately 25 gallons of TernStyle)

SARA TITLE III STATUS:
311/312 Hazard Categories An immediate health hazard. A delayed health hazard.
313 Toxic Chemicals Not listed.

CALIFORNIA PROP 65 STATUS: Not listed.

XVI. OTHER INFORMATION

DISCLAIMER

Phoenix Environmental Care, LLC believes the information and recommendations provided above to be accurate. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided above relates only to the specific product designated and may not be applicable where such product is used in combination with any other materials or in any process. Use of this product is regulated by the U.S. Environmental Protection Agency (EPA). It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Additionally, as the conditions and methods of use are beyond the control of Phoenix Environmental Care, LLC, Phoenix Environmental Care, LLC expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.