

Material Safety Data Sheet

Effective Date: 02-SEP-2005

Product: UNISON NOVEL BROADLEAF HERBICIDE

I. IDENTIFICATION

Chemical Name: 2,4-D Acid
Chemical Family: Chlorophenoxy Herbicide
Formula: Not applicable, formulated mixture.
Synonyms: None
CAS Number: Not applicable, formulated mixture.
EPA Number: 5905-542

II. PHYSICAL DATA

Boiling Point: >212 Degrees F.
Freezing Point: <32 Degrees F.
Spec Gravity: 1.086 gms/cc
Vapor Pressure: Not determined
Vapor Density: Not determined
Solubility: Emulsifiable
Volatiles: 50% (estimate)
Evaporation: Not determined
Melting Point: Not applicable
Appearance: Amber liquid with surfactant odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Proprietary blend of 2,4-D Dichlorophenoxyacetic Acid, Surfactants and Solvents. (Contains 19.6% or 1.74 lbs/gal 2,4-D Acid)		100.00	10 mg/m3	Mild skin & severe eye irritant.

IV. FIRE AND EXPLOSION HAZARD

Flash Point: >200 Degrees F.
Autoignition Temp: Not determined
Flammable Limit: Not determined
Extinguishing Media: Foam, water spray, dry chemical or carbon
dioxide extinguishing media.
Special Fire Fight Proc: Wear self-contained breathing apparatus and
full protective clothing. Contain and dispose
of fire control water.
Fire and Expl Hazard: Under fire conditions, toxic and corrosive
fumes are emitted.

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V. HEALTH HAZARD

Carcinogen Information: Not currently listed.

ACUTE EFFECTS OF OVER EXPOSURE

- Swallowing: Harmful if ingested. May cause nausea, vomiting, abdominal pain and decreased blood pressure. Aspiration of the swallowed or vomited product can cause pulmonary complications.
- Skin Absorption: Slightly irritating. Harmful if absorbed through skin. May cause decreased blood pressure, muscle weakness and muscle spasms. Acute Dermal LD50 > 5,000 mg/Kg.
- Inhalation: Harmful if inhaled. May cause muscle weakness, muscle spasms and decreased blood pressure. Acute Inhalation LC50 is between 0.54 and 2.04 mg/L.
- Skin contact: May cause skin irritation with repeated or prolonged contact.
- Eye Contact: Causes corneal opacity and irreversible eye damage. Vapors and mists can cause irritation.
- Chronic Effects: Prolonged contact can cause liver damage, kidney damage, and chronic muscle damage.
- Other Hazard: Product is a skin sensitizer.

EMERGENCY AND FIRST AID PROCEDURES

- Swallowing: Give 2-3 glasses of water to drink. Do not induce vomiting. Seek medical attention immediately. To prevent aspiration of swallowed product, lay victim on side with head lower with waist.
- Skin: Immediately wash skin with soap and water. Seek medical attention if irritation develops or persists.
- Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If victim is not breathing, administer CPR. Seek immediate medical attention.
- Eyes: Flush eyes with water for at least 15 minutes, holding eyelids open. Seek immediate medical attention, preferably from an ophthalmologist.
- Notes to Physician: There is no specific antidote for this product. All treatments should be based on observed signs and symptoms of distress in the

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patient. This product contains a phenoxy herbicide. Myotoxic effects may include muscle fibrillations, myotonia and muscular weakness. Ingestion of massive doses may result in persistent fall of blood pressure. Myoglobin and hemoglobin may be found in urine. Elevations of lactate dehydrogenase (LDH), SGOT, SGPT and aldolase indicate the extent of muscle damage. If large amounts have been ingested, the stomach should be evacuated by gastric intubation with the aid of a cuffed endotracheal tube to prevent exposure of the esophagus.

VI. REACTIVITY

Stability: Stable
Conditions to Avoid: Extreme heat, open flames, sparks or static electricity.
Polymerization: Will Not Occur
Conditions to Avoid: Not applicable.
Incompatibility material: Strong oxidizing agents.
Hazardous Combustion: Hydrogen chloride and oxides of carbon under fire conditions.

VII. SPILL OR LEAK PROCEDURES

Spill or Leak Proc: Contain spill using absorbent or impervious materials such as earth, sand or clay. Collect and place in plastic recovery drums for proper disposal.
Waste Disposal Method: This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

VIII. SPECIAL PROTECTION INFORMATION

Respiration: When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations.
Ventilation: Local exhaust (mechanical) normally sufficient.
Gloves: Impervious.
Eyes: Chemical workers' goggles.
Other: Eyewash station, emergency shower, impervious apron and footwear.

Helena Chemical Company
PH: 901-761-0050
CHEMTREC: 800-424-9300

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IX. SPECIAL PRECAUTIONS

Special precaution: Keep out of reach of children. Do not store with food, feed or other material to be used or consumed by humans or animals. Do not contaminate water supplies, lakes, streams or ponds.

Other precaution: Do not breathe vapors or mists. Do not get on skin or in eyes. Do not ingest. Use handling, storage and disposal procedures that will prevent contamination of water, food or feed. Store in an area that is away from ignition sources and away from food, feed, fertilizers and seed.

X. SHIPPING INFORMATION

Shipping name: Not regulated by DOT in containers <57 gallons.

Hazard Class: None

Identification No: None

Labels Required: None required (<57 gallons)

Placarding: None

Freight Class: Compound, Tree or Weed Killing, Liquid,
(Herbicide), N.O.I. (NMFC Item 50320, Class 60)

Chemical Name	Equivalent R.Q.
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2,4-D Acid	100 lbs
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TRANSPORTATION NOTE:

If container >57 gallons, ship as follows:

RQ, Environmentally Hazardous Substances, Liquid, n.o.s. (2,4-D Acid), 9, UN3082, PG III "ERG # 171"

XI. GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating:

(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 3

Fire: 1

Reactivity: 0

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S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health: Y	Delayed (Chronic) Health: Y
Sudden Release of pressure: N	Fire: N
Reactive: N	

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017
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