

**ENDRUN**

Helena Chemical Company  
 PH: 901-761-0050  
**CHEMTREC:** 800-424-9300  
**Effective Date:** 25-JAN-2005  
**Product:** EndRun

**I. IDENTIFICATION**

**Chemical Name:** 2,4-D+Dicamba+MCP  
**Chemical Family:** Phenoxy Herbicides  
**Formula:** Not applicable, formulated mixture.  
**Synonyms:** None  
**CAS Number:** Not applicable, formulated mixture.  
**EPA Number:** 2217-656-5905

**II. PHYSICAL DATA**

**Boiling Point:** 212 Degrees F.  
**Freezing Point:** <35 Degrees F.  
**Spec Gravity:** 1.1262 gms/cc  
**Vapor Pressure:** <17 mm/Hg @ 78 Deg. F.  
**Vapor Density:** >1  
**Solubility:** Infinite  
**Volatiles:** Not determined  
**Evaporation:** <1  
**Melting Point:** Not applicable  
**Appearance:** Brown liquid with amine odor.

**III. INGREDIENTS**

Material	CAS Number	Percent	TLV	Hazard
Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (2,4-D)	2008-39-1	30.56	N/E	Skin, eye & respiratory irritant.
Dimethylamine Salt of 3,6-Dichloro-o-anisic Acid (Dicamba)	2300-66-5	2.77	N/E	Skin, eye & respiratory irritant.
Dimethylamine Salt of R(+)-2-(2-Methyl-4-chlorophenoxy)propionic acid (MCP)	66423-09-4	8.17	N/E	Skin, eye & respiratory irritant.
Inert ingredients		58.50	N/E	Non-hazardous

**IV. FIRE AND EXPLOSION HAZARD**

**Flash Point:** 129 Degrees F.  
**Autoignition Temp:** Not determined  
**Flammable Limit:** Not applicable  
**Extinguishing Media:** Use foam, carbon dioxide, dry chemical, or water.  
**Special Fire Fight Proc:** Wear positive-pressure breathing apparatus and full protective clothing.  
**Fire and Expl Hazard:** This product does not ignite readily, but may burn at a very high temperature. The fire may produce irritating or poisonous gases. Run-off from fire area or dilution water may cause pollution.

**V. HEALTH HAZARD**

**Carcinogen Information:** See Note in Section IX.  
**ACUTE EFFECTS OF OVER EXPOSURE**  
**Swallowing:** May irritate the gastrointestinal tract. Symptoms include vomiting, chest pain, abdominal pain, and diarrhea.  
**Skin Absorption:** May be absorbed through the skin. Sensitive individuals should avoid contact.  
**Inhalation:** Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing. Prolonged inhalation may cause dizziness.  
**Skin contact:** Moderately irritating to the skin. Sensitive individuals should avoid contact.  
**Eye Contact:** Contact may cause irritation and burning.  
**Chronic Effects:** Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact.  
**Other Hazard:** None currently known.

**EMERGENCY AND FIRST AID PROCEDURES**

**Swallowing:** 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 instructed to do so by the poison control center or physician.

**Skin:** Remove contaminated clothing. Rinse skin immediately with plenty of water, continuing for 15 to

20 minutes. Call a poison control center or doctor for treatment advice.

**Inhalation:** Move to fresh air. If not breathing, call 911 then give artificial respiration, preferably mouth-to-mouth. Call a poison control center or doctor for treatment advice.

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

**Notes to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

**VI. REACTIVITY**

**Stability:** Stable

**Conditions to Avoid:** None currently known.

**Polymerization:** Will Not Occur

**Conditions to Avoid:** None currently known.

**Incompatibility material:** Do not mix with acidic materials, as this will ruin the product.

**Hazardous Combustion:** May produce gases such as HCl, nitrogen oxides, and carbon monoxide when burning.

**VII. SPILL OR LEAK PROCEDURES**

**Spill or Leak Proc:** Do not touch spilled material. Contain and absorb spilled material on an inert absorbent, such as sand or soil. Collect into drums; cover and label for disposal. Flush area with water if possible. Do not allow spilled material or wash waters to enter any lakes, streams, ponds, sewers or waterways.

**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:** Use NIOSH approval number prefix TC-23C or any R, P, or HE filter, when needed.

**Ventilation:** Good local ventilation recommended.

**Gloves:** Chemical-resistant

**Eyes:** Chemical goggles or safety glasses w/side shields

**Other:** Emergency shower, eyewash station, long-sleeved shirt and long pants, shoes and socks.

**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 waterways, lakes, streams, ponds or sewers. Store in original containers in a locked storage area. Keep from freezing.

**Other precaution:** Carcinogen Note: IARC lists chlorophenoxy herbicides in its Group 2B (limited evidence for carcinogenicity in humans). The USEPA has given the chlorophenoxy herbicides 2,4-D, 2,4-DP, MCPP and MCPA a Class D classification (not classifiable as to human carcinogenicity). More current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded 2,4-D is not a carcinogen.

**X. SHIPPING INFORMATION**

**Shipping name:** Not regulated by DOT in containers less than 41.32 gallons.

**Hazard Class:** None

**Identification No:** None

**Labels Required:** None required

**Placarding:** None

**Freight Class:** Compound, Weed Killing, Liquid (2,4-D Herbicide), N.O.I. (NMFC Item 50320, Class 60)

Chemical Name	Equivalent R.Q.
2,4-D (CAS Number 2008-39-1)	100 lbs.

**TRANSPORTATION NOTE:**

**If container is >= 41.32 gallons, ship as follows:** RQ, Environmentally hazardous substances, liquid, (2,4-D), 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:** 2

**Fire:** 1

**Reactivity:** 0

**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

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