



Safety Data Sheet

Report Date 24-Jun-15

Page 1 of 4

1. Identification

Product Name : EndRun
Synonyms : None
Product Use : Phenoxy Herbicides
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Moderately irritating to the skin.
Eye Irritation : Contact may cause irritation and burning.
Acute Toxicity Oral : LD50 >1,500 mg/kg
Acute Toxicity Dermal : LD50 >2,000 mg/kg. May be absorbed through skin.

Hazard Categories : Oral/Dermal/Inhalation Toxicity-4/5/5; Eye/Skin Irritation-2B/2; Flammable-3

Hazard Statement : Harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes skin irritation
May be harmful if inhaled
Flammable liquid and vapour

3. Composition / Information on Ingredients

| Component | CAS Number | Weight % |
|---|-------------|----------|
| Dimethylamine Salt of 2,4-Dichlorophenoxyacetic Acid (2,4-D) | 2008-39-1 | 30.56 |
| Dimethylamine Salt of 3,6-Dichloro-o-anisic Acid (Dicamba) | 2300-66-5 | 2.77 |
| Dimethylamine Salt of R(+)-2-(2-Methyl-4-chlorophenoxy)propionic acid (MCP) | 66423-09-4 | 8.17 |
| Inert ingredients | Proprietary | 58.50 |

4. First Aid Measures

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

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

Inhalation : 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.

Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.



Safety Data Sheet

Report Date 24-Jun-15

Page 2 of 4

Indication of Immediate Medical Attention and Special Treatment Needed : Probable mucosal damage may contraindicate the use of gastric lavage.

5. Fire Fighting Measures

- Extinguishing Media** : Use foam, carbon dioxide, dry chemical, or water.
- Specific Hazards Arising from the Chemical** : 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.
- Special Fire Fight Proc** : Wear positive-pressure breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Keep unauthorized and unnecessary personnel out of spill area. Do not touch spilled material.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. If exposure limits may be exceeded, wear a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a NIOSH approved respirator with any R, P or HE filter. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Do not allow spilled material or wash waters to enter any lakes, streams, ponds, sewers or waterways.
- Methods and Materials for Containment and Cleanup** : 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.

7. Handling and Storage

- Precautions for Safe Handling** : Do not contaminate water, food or feed by storage, handling or disposal.
- Conditions for Safe Storage** : Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established.
- Appropriate Engineering Controls** : Good local ventilation is recommended; mechanical ventilation may be required if exposure limits may be exceeded.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Wear a respirator with an organic-vapor removing cartridge with pesticide prefilter. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Brown liquid with amine odor.
- Flash Point, °F** : 129 Degrees F.
- Boiling Point, °F** : 212 Degrees F.
- Melting Point(Freezing point), °C** : <35 Degrees F.
- Vapor Pressure, mm Hg @ 20 °C** : <17 mmHg @ 78 Deg. F.
- Vapor Density** : >1



Safety Data Sheet

Report Date 24-Jun-15

Page 3 of 4

Solubility in Water : Infinite
Molecular Formula : Not applicable, formulated mixture.
Density, g/mL @ 25 °C : 1.126
Evaporation Rate(Butyl Acetate = 1) : <1
Octanol/Water Partition Coefficient : No information found
pH : 7.5 to 8.5
Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : Not determined
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : May produce gases such as HCl, nitrogen oxides, and carbon monoxide when burning.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known.
Incompatible Materials : Do not mix with acidic materials, as this will ruin the product.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >1,500 mg/kg. Harmful if swallowed.
Acute Toxicity (Dermal LD50) : >2,000 mg/kg. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 listed. May be harmful if inhaled. Moderately irritating to the mucous membranes.
Likely Routes of Exposure : Eyes, skin, ingestion
Skin Irritation : Causes skin irritation. Moderately irritating to skin. May be absorbed through skin.
Eye Irritation : Causes eye irritation. Contact causes irritation and burning.
Skin Sensitization : Not listed as a skin sensitizer.
Carcinogenic : IARC lists chlorophenoxy herbicides in Group 2B (limited evidence for carcinogenicity in humans).
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 Hazards : None currently known.

12. Ecological Information

Ecotoxicity : This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants.
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations



Safety Data Sheet

Report Date 24-Jun-15

Page 4 of 4

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT in containers less than 41.32 gallons.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : Marine Pollutant, if shipped in bulk package or shipped by air (IATA) or vessel (IMDG).
Transport in Bulk : If shipped in bulk packages, ship as: RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (2,4-D Acid), 9, PG III, Marine Pollutant
Special Precautions for Transportation : ERG number is 171. If shipped in single package \geq 41.32 gallons and \leq 119 gallons, ship as: RQ, UN3082, Environmentally Hazardous substances, liquid, (2,4-D), 9, UN3082, PG III "ERG # 171"
Freight Classification : Pesticides, NOI, Herbicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 2 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

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

FIFRA Information : This Chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Registration Number : 2217-656-5905

FIFRA Signal Word : Danger

FIFRA Label Statement : Keep out of reach of children.

FIFRA Label Statement : Danger: Corrosive. Causes irreversible eye damage.

FIFRA Label Statement : Harmful if swallowed.

FIFRA Label Statement : Harmful if absorbed through skin.

FIFRA Label Statement : Do not get in eyes, on skin or on clothing.

FIFRA Label Statement : Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum,

FIFRA Label Statement : using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

16. Other Information

Data of Preparation/Revision : 24-June-2015