Safety Data Sheet

Report Date 03-Jun-15

1. Identification

Product Name : 2,4-D LV 4
Synonyms : None
Product Use : Low Volatile Herbicide
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 : Minimally irritating (rabbit)
Eye Irritation : Causes slight to moderate eye irritation
Acute Toxicity Oral : LD50 >1,000 mg/kg (rat)
Acute Toxicity Dermal : LD50 >2,000 mg/kg (rat)

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

Hazard Statement : Harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
Harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
2-Ethylhexyl ester of 2,4-Dichlorophenoxyacetic Acid	1928-43-4	63.7
Inert ingredients	Nonhazardous	36.3

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.
Indication of Immediate Medical Attention and Special Treatment Needed : In the event of an adverse response, treatment should be directed toward control of the symptoms.

5. Fire Fighting Measures

Extinguishing Media : Use water spray or foam.
Specific Hazards Arising from the Chemical : Hydrogen chloride, oxides of nitrogen.
Special Fire Fight Proc : Wear self-contained breathing apparatus and full protective clothing. Evacuate area and fight fire upwind from a safe distance to avoid possible hazardous fumes and decomposition products. Dike and collect water used to fight fire.

6. Accidental Release Measures

Personal Precautions : Keep unprotected and unnecessary personnel out of spill area.
Protective Equipment : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use respirator with organic vapor cartridge and pesticide prefilter in enclosed areas. Eyewash and emergency shower should be available in work area.
Emergency Procedures : Minimize use of water to prevent environmental contamination.
Methods and Materials for Containment and Cleanup : Clean up spills immediately. Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal. 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.

7. Handling and Storage

Precautions for Safe Handling : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed. Do not allow water to be introduced into the contents of the container.
Conditions for Safe Storage : Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

8. Exposure Controls / Personal Protection

TLV/PEL : 2-Ethylhexyl ester of 2,4-Dichlorophenoxyacetic acid - 10 mg/m3 (TLV).
Appropriate Engineering Controls : Local mechanical exhaust ventilation may be required.
Personal Protective Equipment : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Use respirator with organic vapor cartridge and pesticide prefilter in enclosed areas. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Clear light amber liquid, fuel oil like odor.
Flash Point, ^{0}F : >100 Degrees C.
Boiling Point, ^{0}F : No information found
Melting Point(Freezing point), ^{0}C : No information found
Vapor Pressure, mm Hg @ 20 ^{0}C : 0.4 mmHg at 24 Degrees C.
Vapor Density : No information found
Solubility in Water : Emulsifies
Molecular Formula : Not applicable, formulated mixture.
Density, g/mL @ 25 ^{0}C : 1.018
Evaporation Rate(Butyl Acetate = 1) : No information found
Octanol/Water Partition Coefficient : No information found
pH : 3.5 to 4.5

Flammable Limits (approximate volume % in air)	: No information found
Auto-ignition Temperature	: No information found
Decomposition temperature	: No information found

10. Stability and Reactivity

Reactivity	: No information found
Chemical Stability	: Stable
Hazardous Decomposition Products	: Thermal decomposition may release toxic gases such as hydrogen chloride, oxides of nitrogen and carbon.
Hazardous Polymerization	: Will not occur
Conditions to Avoid	: Avoid excessive heat.
Incompatible Materials	: Oxidizing agents and acids.

11. Toxicological Information

Acute Toxicity (Oral LD50)	: >1,000 mg/kg (rat). Harmful if swallowed.
Acute Toxicity (Dermal LD50)	: >2,000 mg/kg (rat). May be harmful in contact with skin.
Acute Toxicity Inhalation LC50	: >4.0 mg/L. Harmful if inhaled.
Likely Routes of Exposure	: Ingestion, eyes, skin, inhalation.
Skin Irritation	: Causes mild skin irritation.
Eye Irritation	: Causes eye irritation.
Skin Sensitization	: Not a skin sensitizer.
Carcinogenic	: Listed by IARC (2B).
Chronic Effects	: None currently known.
Other Hazards	: Laboratory tests have shown decreased fetal body weights at doses toxic to the mother animals (teratogen). Not a mutagen.

12. Ecological Information

Ecotoxicity	: This pesticide may be toxic to fish and aquatic invertebrates.
Persistence and Degradability	: 2,4-D Ethylhexyl Ester rapidly de-esterifies to the parent acid in the environment. Typical half-life of the 2,4-D acid form is from a few days to a few weeks.
Bioaccumulative Potential	: No information found
Mobility in Soil	: The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.
Other Adverse Effects	: No information found

13. Disposal Considerations

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 single packages <26 gallons. If single package >/= 26 gallons, ship as RQ, Environmentally Hazardous Substance, Liquid, n.o.s., (2,4-D ethylhexyl ester)
Transport Hazard Class	: Class 9 (>/= 26 gal)

UN Identification Number : UN3082 (>/= 26 gal)
Packaging Group : PG III
Environmental Hazards : Reportable Quantity (RQ) 100 lbs (>/= 26 gallons in single package).
Transport in Bulk : RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (2,4-D ethylhexyl ester), 9, PG III "ERG # 171"
Special Precautions for Transportation : Use 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 : 42750-15-5905
FIFRA Signal Word : Caution
FIFRA Label Statement : Keep out of reach of children.
FIFRA Label Statement : Harmful if swallowed or absorbed through skin.
FIFRA Label Statement : Causes moderate eye irritation.
FIFRA Label Statement : Avoid contact with skin, eyes or clothing.
FIFRA Label Statement : Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.
FIFRA Label Statement : No additional label statements.
FIFRA Label Statement : No additional label statements.

16. Other Information

Data of Preparation/Revision : 03-June-2015