

# Material Safety Data Sheet

Product Name: LV400 2,4-D Weed Killer Solvent Free

MSDS No.: 860-2

Version No.: 001

EPA Registration No.: 2217-936

## 1. Basic Information:

**Manufacturer:** PBI/Gordon Corporation  
**Address:** 1217 West 12th Street  
**City, State Zip:** Kansas City, MO 64101-1407  
**Information Contact:** Environmental, Health, & Safety Dept.  
**Information Telephone Number:** (816)421-4070  
**Emergency Contact:** Chemtrec  
**Emergency Telephone Number:** (800)424-9300



2	Health
1	Flammability
0	Reactivity
B	Pers. Protection

Last Update: 8/16/2010

**Chemical State:**  Liquid  Gas  Solid  
**Chemical Type:**  Pure  Mixture

## 2. Ingredients:

Trade Secret (ND = Not Disclosed)

CAS No.	Chemical Name	% Range	EHS		IARC		SARA 313		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z						
1928434	2,4-Dichlorophenoxyacetic acid, isooctyl (2-ethylhexyl) ester (2,4-D 2-EHE)	61.74%	N	N	Y	N	Y	NI	NI	NI	
107211	Ethylene glycol	1.4%	N	N	N	N	Y	NI	100mg/m3	NI	

## 3. Hazardous Identification:

**Hazard Category:**  
 Acute  Chronic  Fire  Pressure  Reactive

**Hazardous Identification Information:**  
 The International Agency for Research on Cancer (IARC) lists chlorophenoxy herbicides in its Group 2B (limited evidence for carcinogenicity in humans.) The US EPA has given the chlorophenoxy herbicides 2,4-D, 2,4-DP, MCP, 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 that 2,4-D is not a carcinogen.

## 4. First Aid Measures:

**Route(s) of Entry:**  
 Skin contact, Inhalation, Ingestion.

**Health Hazards (Acute and Chronic):**  
 EYES: Causes moderate eye irritation.

SKIN: Moderately irritating to the skin; may be absorbed through the skin.

INHALATION: Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing.

INGESTION: May irritate the gastrointestinal tract.

**Signs and Symptoms:**  
 Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting. Pain in the chest and abdomen, and diarrhea may follow.

**Medical Conditions Generally Aggravated by Exposure:**  
 Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact. (respirator, gloves, etc.)

## First Aid Measures (Continued)

**Emergency First Aid Procedure:**  
 IF IN EYES: In case of contact, immediately flush eyes with plenty of water for 15 minutes. Call a physician at once.  
 IF SWALLOWED: Drink 1 or 2 glasses of water. Induce vomiting by touching back of throat with finger. Call a physician at once. Do not induce vomiting or give anything by mouth to an unconscious person.  
 IF INHALED: Remove victim to fresh air and apply respiration if indicated.  
 IF ON SKIN: Wash promptly with soap and water. Rinse thoroughly.  
**Other Health Warnings:**  
 NI

## 5. Fire Fighting Measures:

**Flash Point:** >212°F **F.P. Method:** NI  
**Lower Explosive Limit:** NI  
**Upper Explosive Limit:** NI  
**Fire Extinguishing Media:**  
 Foam, CO2, dry chemical, water.

**Special Fire Fighting Procedures:**  
 Wear positive-pressure breathing apparatus and full protective clothing. Fight fire from maximum distance. Stay up-wind and out of low areas.

**Unusual Fire and Explosion:**  
 This product does not ignite readily, but may burn at a very high temperature. The fire may produce irritating or poisonous gases. Runoff from fire control area or dilution water may cause pollution. If surface water is contaminated, contact local authorities.

## 6. Accidental Release Measures:

**Steps to be Taken in Case Material is Released or Spilled:**  
 Do not touch spilled material. Wear chemical-resistant gloves and shoes, protective clothing, and safety glasses. Contain and absorb spilled material on Dri-Rite, sand or other inert absorbent. Collect into drums; cover and label for disposal. Flush area with water if possible. For a large spill, use of a dust/mist respirator, NIOSH/MSHA approval number

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## Accidental Release Measures (Continued)

prefix TC-21C or a chemical cartridge respirator, NIOSH/MSHA TC-23C is recommended.

## 7. Handling and Storage:

### Precautions to be Taken:

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

**PESTICIDE STORAGE:** Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides or fungicides. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under 'Pesticide Disposal.'

### Other Precautions:

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:** Non-refillable containers (1, 2.5, 30 & 55 gallon): Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

[OR Triple rinse container (or equivalent) promptly after emptying.

[For non-refillable containers <5 gallons:]

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

[For non-refillable containers >5 gallons:]

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[For refillable containers (250 gallon & bulk):]

Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

## 8. Exposure Controls/Personal Protection:

### Ventilation Requirements:

Good local ventilation is recommended; mechanical ventilation may be required if exposure limits may be exceeded.

### Personal Protective Equipment:

User Safety Recommendations

--Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

--Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.

--Users should 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.

## 9. Physical and Chemical Properties:

Boiling Point: NI

Melting Point: NI

Evaporation Rate (Butyl Acetate = 1) : NI

Vapor Pressure (mm Hg.): NI

Vapor Density (Air = 1): NI

Specific Gravity (H2O = 1): 1.09000

Solubility in Water: Emulsifies

Appearance and Odor: White liquid; slight phenoxy odor

### Other Information:

Density at 20°C = 9.09 pounds/gallon

Freezing point<35°F

## 10. Stability and Reactivity:

### Stability:

Stable.

### Incompatibility (Materials to Avoid):

Acids and oxidizing agents.

### Decomposition/By-Products:

May produce gases such as HCl, nitrogen oxides, and carbon monoxide when burning.

### Hazardous Polymerization:

Will not occur.

## 11. Toxicological Information:

Acute Oral Toxicity LD50 -rat: >1,000 mg/kg,

Acute Dermal Toxicity LD50-rabbit: >2,000 mg/kg

Acute Inhalation Toxicity LC50 -rat: >3.0 mg/L

Primary Eye Irritation-rabbit: Slightly irritating to the eye.

Primary Skin Irritation-rabbit: Slightly irritating to the skin.

Dermal Sensitization (Guinea Pig): Not considered to be a contact sensitizer.

Mutagenic Data: Not known to be mutagenic

## 12. Ecological Information:

Environmental Hazards

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

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## Ecological Information (Continued)

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.

### 13. Disposal Considerations:

**PESTICIDE DISPOSAL:** Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

### 14. Transport Information:

The following guidelines apply for domestic ground transport. If shipping by air or ocean, please contact our Transportation Department.

Freight Class: Pesticides, NOI - NMFC Class #155050-6

Proper Shipping Name:

For package sizes less than 26.95 gallons: product is non-regulated.

For package sizes 26.95 gallons or greater: Environmentally Hazardous Substances, Liquid, N.O.S., 9, UN3082, PGIII, RQ (2,4-D)

If shipped in bulk containers (greater than 119 gallons), this product is a Marine Pollutant.

When shipped as a Hazardous Material, label required is Class 9 (Miscellaneous). Placards required on bulk shipments only.

### 15. Regulatory Information:

**OSHA STATUS:** This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

**TSCA STATUS:** This product is exempt from TSCA Regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.

**CERCLA REPORTABLE QUANTITY:** 162 pounds of the formulation which contains 100 pounds of 2,4-D 2-EHE

**SARA TITLE III:**

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None

SECTION 311/312 HAZARD CATEGORIES: Immediate Health Hazard, Delayed Health Hazard

SECTION 313 TOXIC CHEMICALS: 2,4-D 2-ethylhexyl ester CAS# 1928-43-4, Ethylene glycol CAS#n 107-21-1

**RCRA STATUS:** When discarded in its purchased form, this product is a listed RCRA hazardous waste and should be managed as a hazardous waste. (40 CFR 261.20-24)

### 16. Other Information:

**REASON FOR ISSUE:** New MSDS in the ANSI Z400.1-1998 format

**NOTE:** NI means not indicated.

## Other Information (Continued)

The information and statements in this Material Safety Data Sheet are believed to accurately reflect the scientific evidence used in making the hazard determination, but is not to be construed as a warranty or representation for which we assume legal responsibility. Additional information may be necessary or desirable depending on particular, exceptional or variable conditions or circumstances of use or storage or because of locally applicable laws or government regulations. Therefore, you should use this information only as a supplement to other information available to you and must make independent determinations of the suitability of the information for your particular circumstances or conditions and of the completeness of the information available from all sources to assure both the proper use of the material described herein and the safety and health of employees.