

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY**Product Name: **Preen Lawn Stepsaver Weed Control Plus Fertilizer 24-0-6**

EPA No: 961-419

Recommended use

This product is a mixed fertilizer/herbicide for landscape use.

Supplier/Manufacturer

Lebanon Seaboard Corporation

1600 East Cumberland Street

Lebanon PA 17042 USA

Tel: (800) 233-0628 (717-273-1685)

Supplier Email: customerservice@lebsea.comEmergency telephone numbers in USA

800-233-0628

Chemtrec (Spill): 1-800-424-9300

Prosar (Health): 888-208-1368

2. HAZARDS IDENTIFICATION

Acute toxicity - Oral Category 4

Acute toxicity - Dermal Category 4

Acute toxicity - Inhalation (Dusts/Mists) Category 4

Carcinogenicity: Crystalline silica- IARC Group 1: sufficient evidence for carcinogenicity in humans .
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, MCPP, and MCPA a Class D classification (not classifiable as to human carcinogenicity.)
A recent World Health Organization (WHO) review of 2,4-D⁺ toxicology has concluded that 2,4-D is not a carcinogen based on more current 2,4-D lifetime feeding studies in rats and mice did not show carcinogenic effects.
⁺2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

OSHA Signal Word: Danger

EPA Signal Word: Caution

Hazard Statements:

H302: Harmful if swallowed. (Category 4)

H313: May be harmful in contact with skin. (Category 5)

H333: May be harmful if inhaled. (Category 5)

H350: May cause cancer by repeated and prolonged inhalation. (Category 1B)

May irritate the digestive tract if ingested.

Keep out of reach of children.



Pictograms:

Precautionary Statements for handling: Also see Section 7.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust.

P281: Use personal protective equipment as required.

P308: If exposed or concerned, seek medical advice.

P405: Store locked up.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P301+ 312: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.

Hazards not otherwise classified (HNOC): None

Unknown acute toxicity <3% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Dolomite*	16389-88-1	23.68
2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester)	1928-43-4	1.108
R-2-(4- chloro-2-methylphenoxy) propionic acid (Mecoprop; MCP)	16484-77-8	0.167
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	0.071
Dithiopyr	97886-45-8	0.16
Quartz silica (inert)	14808-60-7	0.5-1.5
Nonhazardous fertilizer ingredients	Various	Balance

**Note: Naturally mined minerals, like dolomite typically contain silica (sand) at amounts ranging from 1 to 3%. Fine silica particulates are considered as a carcinogen via repeated and prolonged inhalation. This product is estimated to contain as much as 0.5% quartz silica.*

4. FIRST AID MEASURES

Eye Contact	Rinse eyes with water. If discomfort or irritation persists contact a physician.
Skin Contact	Wash with soap and water. If injury occurs, or if discomfort or irritation persists contact a physician.
Inhalation	If inhaled and discomfort occurs, move to fresh air, and keep person at rest in a position comfortable for breathing. If difficulty in breathing occurs and/or persists, administer oxygen and get medical attention. If medical advice is needed, have product container or label on hand.
Ingestion	Rinse mouth. Drink Plenty of water. If discomfort occurs, seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: Use any appropriate personal protective equipment as required to avoid breathing dust, and to avoid eye and skin contact.

Most important symptoms and effects, both acute and delayed:

Symptoms: Dust irritation with nasal discomfort, or skin irritation possible. May irritate digestive tract. May cause mild eye irritation. Treat symptomatically.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, CO₂, ABC Dry Chemical extinguisher, or foam. Avoid stirring up dust with water stream.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes.

Explosion data

Sensitivity to mechanical impact: None
Sensitivity to static discharge: None

Note: Excessive amounts of any burnable dusts can produce explosive mixtures if allowed to disperse in the air in confined areas where ignition sources occur. Prevent excessive dust dispersal in areas of use, storage, or production.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and standard protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use reasonable personal protective equipment as required to prevent contact with eyes or skin and to avoid breathing dust. Remove ignition sources prior to clean-up.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.
Methods for containment	Prevent further leakage or spillage, if safe to do so.
Methods for clean-up	Use reasonable personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up excess with inert absorbent material.

7. HANDLING AND STORAGE

Safe Handling	Use only outdoors or in well-ventilated area. Get special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Use personal protective equipment as required. Wash hands thoroughly after handling.
Storage Conditions	Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Keep out of the reach of children. Keep away from food, drink and animal feed.
Incompatible materials	Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH* or REL
2,4-D ester (as 2,4-D) [†]	10 mg/m ³ (TWA inhalable)	10 mg/m ³ (TWA total)	100 mg/m ³
Quartz silica (inert)	0.025 mg/m ³ (respirable)	250 mppcf %SiO ₂ + 5	0.05 mg/m ³ (REL)
Nuisance Dusts	10 mg/m ³ (TWA)	10 mg/m ³ (TWA total)	Not Established

*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

[†]2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

Engineering controls: Use with adequate ventilation to prevent dust buildup in air.

Individual protection measures

Eye protection	Safety glasses, or goggles if eye contact is likely
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Skin and Body Protection	Gloves and coveralls recommended.
Respiratory Protection	Avoid breathing dust. Dust mask recommended for dusty or misty conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene	When using product, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Appearance	Granules
Color	Mixed, various
Odor	Slight
Odor Threshold	No information available
pH	Not applicable
Melting point/freezing point	Not applicable
Boiling point / boiling range	Not applicable
Flash point	No information available
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Flammability Limits in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Not applicable
Vapor density	Not applicable
Specific Gravity	Not applicable
Water solubility	Mostly Insoluble in water, although some ingredients may dissolve.
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable.

Possibility of Hazardous Reactions

May release heat and fumes when mixed in solution with incompatible reactive materials.

Hazardous polymerization

Will not occur.

Conditions to avoid

High heat, sparks and open flames, as some ingredients may be burnable.

Incompatible materials

Strong acids or alkali, or other reactive substances.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions, such as Nitrogen oxides (NOx), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Product Toxicity:

Acute Oral Toxicity: >2000 mg/kg (rat)
 Acute Dermal Toxicity: >2000 mg/kg (rabbit)
 Acute Inhalation Toxicity: >2.07 mg/l (rat).

Routes of exposure: Ingestion, eyes (contact), skin (contact), dust inhalation

Symptoms May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea.

Sensitization Not a skin sensitizer.

Germ cell mutagenicity No information available.

Carcinogenicity for herbicides in product:

IARC: Group 2B, limited evidence for carcinogenicity in humans (for 2, 4-D) [‡]

US EPA: Class D, not classifiable as to human carcinogenicity (for 2, 4-D) [‡]

WHO: Not a carcinogen by WHO (for 2, 4-D) [‡]

OSHA: Yes {for 2, 4-D and its analogues[‡], and (R)-2-(4-Chloro-2-methylphenoxy)propionic acid}

[‡]2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

Carcinogenicity (other): Crystalline silica- IARC Group 1: sufficient evidence for carcinogenicity in humans

Reproductive toxicity No information available

STOT - single exposure No information available

STOT - repeated exposure No information available

Chronic toxicity Avoid repeated exposure

Target Organ Effects No information available

Aspiration hazard No information available

Key Ingredients Toxicity

Dithiopyr: Inhalation LC50 >6 mg/m³ (rat) 4 hour

Trade Secret Ingrid.: Oral LD50 >5000 mg/kg (rat); Dermal LD50 >2mL/kg (rabbit); Inhalation LC50 >590 mg/m³ (rat) 4 hour

12. ECOLOGICAL INFORMATION

2,4-D is highly toxic to fish.

Ecotoxicity of 2, 4-Dichlorophenoxyacetic acid (2,4-D) [‡]:

Fish: 96 hour LC50: 20 mg/L (*Cyprinus carpio*) semi-static

Microbes: EC50 5.74 mg/l 15 min

Invertebrates: 72-hour EC50: 417.8 mg/L (*Daphnia magna*); 48-hour EC50: 17.6 - 32.6 mg/L (*Daphnia magna*) static

Plants: 120-hour EC50: 20 - 52 mg/L (*Pseudokirchneriella subcapitata*)

[‡]2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

Ecotoxicity of Trade Secret Ingredient:

Fish: 96 hour LC50: 19 mg/L (*Pimephales promelas*) static

Invertebrates: 48-hour EC50: 0.95 mg/L (*Daphnia magna*);

Plants: 72-hour EC50: 2.5 mg/L (*Skeletonema costatum*)

Fertilizers may be harmful to aquatic life with short term effects, causing algal bloom and increased BOD, depending on the amount released.

The herbicide ingredients are toxic to aquatic invertebrates, fish, and aquatic plants. Use with care when applying to turf areas adjacent to any bodies of water. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent bodies of water. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwater.

Application around a cistern or well may result in contamination of groundwater or drinking water, particularly where soils are permeable and water table is shallow.

Persistence and degradability	2, 4-D has low soil persistence.
Bioaccumulation	No information available
Other adverse effects	The honeybee LD ₅₀ for 2,4-D is 0.0115 mg/bee

13. DISPOSAL CONSIDERATIONS

Hazardous waste regulations: Product contains more than 200 mg/Kg of 2,4-D ester.
2,4-D salts, esters, acids, and other analogues:

- RCRA#: U240
- Tox#: DO16

Disposal of wastes:

EPA Waste Numbers are applicable for this product's components.
Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

US Federal: special packaging considerations for pesticide containers. If the container is empty, do not reuse it. Place it in the trash, unless the label specifies a different procedure. Follow local regulations.

14. TRANSPORT INFORMATION

DOT Description: HERBICIDES, NOI - NMFC #50520

DOT:	Not Regulated	ADR:	Not Regulated
Proper Shipping Name:	Non Regulated	ADN:	Not Regulated
Hazard Class:	Not Applicable	RID:	Not Regulated
IATA:	Not Regulated	IATA:	Not Regulated
Proper Shipping Name:	Non Regulated	TDG:	Not Regulated
Hazard Class:	Not Applicable	ICAO:	Not Regulated
IMDG/IMO	Not Regulated	MEX:	Not Regulated
Hazard Class	Not Applicable		
Marine Pollutant	No		

15. REGULATORY INFORMATION

General Product Information: This product is exempt from TSCA Regulation under FIFRA Section 3(2)(G)(ii) when used as a pesticide.

Clean Air Act: No data

Clean Water Act: This product contains the following substances regulated as pollutants pursuant to the Clean Water Act. Reportable quantities are shown:

2, 4-Dichlorophenoxyacetic acid (2,4-D) and analogues	100-Lb
3,6-Dichloro-o-anisic acid (Dicamba)	1000-Lb

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

Hazardous Waste Regulations: Product contains more than 200 mg/Kg of 2,4-D ester.

2,4-D salts, esters, acids, and other analogues:

- RCRA#: U240
- Tox#: DO16

CERCLA REPORTABLE QUANTITY: This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazard. Subst. RQs	CERCLA/SARA RQ	Reportable Quantity
2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester CAS# 1928-43-4	100 Lb	-	100 Lb (45.4 kg) Final RQ
3,6-Dichloro-o-anisic acid (Dicamba); 1918-00-9	1000 LB	-	1000 Lb (454 kg) Final RQ

SARA TITLE III:

Section 302, Extremely Hazardous Substances: None

Section 311/312 Hazard Categories:

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Section 313 Toxic Chemicals: This product contains a chemical or chemicals subject to the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to that Act and Title 40 of CFR Part 372:

Chemical Name	CAS No.	Weight %	SARA 313 Threshold Value
2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester)	1928-43-4	0.64	0.1%
3,6-Dichloro-o-anisic acid (Dicamba)	1918-00-9	0.06	1.0%

State Right-to-Know Regulations :

Chemical Name	NJ	MA	PA	RI	IL	CA	NH	NY
2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) [†]	X	X	X					
3,6-Dichloro-o-anisic acid (Dicamba)	X	X	X					
Quartz (silica)	X	X	X	X	X	X	X	X

[†]2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

California Proposition 65: This product contains detectable quantities of a substance (crystalline silica) known to the State of California to cause cancer.

International

Mexico Exposure Limits for 2, 4-Dichlorophenoxyacetic acid (2,4-D)[†]: TWA 10 mg/m³; STEL 20mg/m³

[†]2, 4-Dichlorophenoxyacetic acid 2-ethylhexyl ester (2,4-D ester) is an analogue of 2,4-D. Toxicological and exposure data is typically referenced to the related parent compound, 2,4-D, as is done here.

16. OTHER INFORMATION

HMIS: Health-2 Flammability-1 Physical Hazards-0 Personal Protection: X

Disclaimer

The information provided in this material safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information

relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.