1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Preen Lawn Weed Control

EPA No: 961-418

Recommended use
This product is an herbicide for landscape use.

Supplier/Manufacturer
Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
Tel: (800) 233-0628 (717-273-1685) Supplier Email: customerservice@lebsea.com

Emergency telephone number
800-233-0628 Chemtrec 1-800-424-9300 Prosar 888-208-1368

2. HAZARDS IDENTIFICATION

OSHA Signal Word: Warning
EPA Signal Word: Caution

Hazard Statements:

Harmful if swallowed. Oral Toxicity Category 4
Harmful if inhaled. Acute Toxicity- Inhalation Category 4
Causes serious eye irritation Eye Irritation/damage Category 2A
May cause an allergic skin reaction Skin sensitization Category 1
Suspected of causing cancer IARC Category 2B
Keep out of reach of children.
Harmful to aquatic life with long lasting effects.

Carcinogen status: Two of the three herbicides in this product are chlorophenoxy herbicides. 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.) More current lifetime feeding studies in rats and mice using the herbicide 2,4-D did not show carcinogenic effects and a recent World Health Organization (WHO) review of 2,4-D toxicology has concluded that this particular chlorophenoxy herbicide is not a carcinogen.

Precautionary Statements for handling: See Section 7.

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

Hazards not otherwise classified (HNOCS): None

Unknown acute toxicity <2% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorophenoxyacetic acid (2,4-D)</td>
<td>94-75-7</td>
<td>1.37</td>
</tr>
<tr>
<td>R-2-(4- chloro-2-methylphenoxy) propionic acid (Mecoprop; MCPP)</td>
<td>16484-77-8</td>
<td>0.31</td>
</tr>
<tr>
<td>3,6-Dichloro-o-anisic acid (Dicamba)</td>
<td>1918-00-9</td>
<td>0.13</td>
</tr>
<tr>
<td>Cellulose</td>
<td>9004-34-6</td>
<td>95-96%</td>
</tr>
<tr>
<td>Diethylene glycol</td>
<td>111-46-6</td>
<td>1.2-2%</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Eye Contact  Rinse eyes with plenty of 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 or eye irritation possible (on contact).

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. May cause skin sensitization in susceptible individuals.

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  Do not breath dusts or fumes. May cause sensitization by inhalation or skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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
Read all safety instructions before handling. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when handling this product. Avoid breathing dusts. Use only outdoors or in a well ventilated area.

Storage Conditions
Keep containers tightly closed in a cool, well-ventilated place. Store locked up. Keep away from food, drink and animal feed. Keep out of the reach of children.

Incompatible materials
Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 4-Dichlorophenoxyacetic acid (2,4-D)</td>
<td>10 mg/m$^3$ (TWA inhalable)</td>
<td>10 mg/m$^3$ (TWA total)</td>
<td>100 mg/m$^3$ IDLH$^*$</td>
</tr>
<tr>
<td>Nuisance Dusts</td>
<td>10 mg/m$^3$ (TWA inhalable)</td>
<td>15 mg/m$^3$ (TWA total)</td>
<td>10 mg/m$^3$ TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mppcf (TWA total)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mppcf (TWA respirable)</td>
<td></td>
</tr>
</tbody>
</table>

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

Engineering controls: Use with adequate ventilation to prevent dust buildup in air. Have eyewash and shower facilities in case of eye or skin contact.

Individual protection measures

Eye protection
Safety glasses, or goggles if eye contact is likely.

Skin and Body Protection
Gloves and coveralls recommended.

Respiratory Protection
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. Contaminated clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Granules</td>
</tr>
<tr>
<td>Color</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable.

Possibility of Hazardous Reactions
None under normal use or storage.

Hazardous polymerization
Will not occur.

Conditions to avoid
Extremes of temperature and prolonged sunlight exposure may degrade product.

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

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

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

Eye contact: Moderately irritating to eyes on contact.

Skin contact: Harmful if absorbed through skin.

Sensitization May cause an allergic skin reaction in sensitive individuals.

Germ cell mutagenicity No information available.

Reproductive toxicity
STOT - single exposure No information.
STOT - repeated exposure: No information available
Chronic toxicity: Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse liver effects.
Target Organ Effects: Central nervous system, kidney, liver, skin.
Aspiration hazard: No information available

Carcinogenicity:
- IARC: 2B (Limited evidence for carcinogenicity in humans)
- US EPA: Class D (Not classifiable as to human carcinogenicity)
- WHO: Concluded that 2,4-D is not a carcinogen

ATEmix (oral): 1109 mg/kg
ATEmix (inhalation-dust): 3.3 mg/l

12. ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

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)

The herbicide ingredients are toxic to aquatic plants and aquatic some invertebrates. 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: No information available
Bioaccumulation: No information available
Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

This material, as supplied is a hazardous waste according to federal regulations (40 CFR 261).

Disposal of wastes:
This product is a hazardous waste material.
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 #50320

In our current available sizes, this product does not qualify as a hazardous material.
15. REGULATORY INFORMATION

### U.S. EPA Label Information

**EPA Pesticide Registration Number** 2217-640

**Federal Insecticide, Fungicide, Rodenticide Act Regulations**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling 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: **Caution.**

### International Inventories

<table>
<thead>
<tr>
<th>TSCA</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</tr>
</tbody>
</table>

### Chemical Name

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>AICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichlorophenoxyacetic acid (2,4-D)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>R-2-(4-chloro-2-methylphenoxy) propionic acid (Mecoprop; MCPP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,6-Dichloro-o-anisic acid (Dicamba)</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### US Federal Regulations

**SARA 313**

This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372; Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight %</th>
<th>SARA 313 Threshold Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 4-Dichlorophenoxyacetic acid (2,4-D)</td>
<td>94-75-7</td>
<td>1.37</td>
<td>0.1%</td>
</tr>
<tr>
<td>3,6-Dichloro-o-anisic acid (Dicamba)</td>
<td>1918-00-9</td>
<td>0.13</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

### SARA 311/312 Hazard Categories

- **Acute health hazard**: Yes
- **Chronic Health Hazard**: No
- **Fire hazard**: No
- **Sudden release of pressure hazard**: No
- **Reactive Hazard**: No
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) 100-Lb
- 3,6-Dichloro-o-anisic acid (Dicamba) 100-Lb

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):

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazard. Subst. RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 4-Dichlorophenoxyacetic acid (2,4-D); 94-75-7</td>
<td>100 Lb</td>
<td>-</td>
<td>100 Lb (45.4 kg) Final RQ</td>
</tr>
<tr>
<td>3,6-Dichloro-o-anisic acid (Dicamba); 1918-00-9</td>
<td>1000 LB</td>
<td>-</td>
<td>1000 Lb (454 kg) Final RQ</td>
</tr>
</tbody>
</table>

State Right-to-Know Components:

- 2, 4-Dichlorophenoxyacetic acid (2,4-D): NJ, MA, PA
- 3,6-Dichloro-o-anisic acid (Dicamba): NJ, MA, PA

California Proposition 65: This product contains detectable quantities of chemicals 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

16. OTHER INFORMATION

NFPA: Health hazards 2  Flammability 0  Instability 0  Physical and Chemical Properties -

HMIS: Health hazards 2  Flammability 0  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.