



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: **Lebanon Turf Fungicide contains Daconil**

Product Identity: Mixed granular pesticide.

EPA No.: 961-277

Recommended use

This product is a mixed granular pesticide for landscape use.

Supplier/Manufacturer

Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042
800-233-0628
(717-273-1685)

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION

OSHA Signal Word: Danger

EPA Signal Word: Caution

Hazard Categories:

Inhalation: Category 3

Skin Sensitizer: Category 1B

Carcinogenicity: Category 2

Specific Target Organ Toxicity: Repeated Category 2

Specific Target Organ Toxicity: Drowsiness Category 3

Eye Damage/Irritation: Category 2A

Specific Target Organ Toxicity: Respiratory Irritation Category 3

Hazard Statements:

May cause an allergic skin reaction.

Causes serious eye irritation.

Toxic if inhaled.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Suspected of causing cancer.

May cause damage to organs through prolonged or repeated exposure.



Pictograms:

Precautionary Statements for Handling:

- Obtain special instructions before use.
- If exposed or concerned: Get medical advice/attention.
- Call a poison center or doctor if you feel unwell.
- If on skin: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice.
- Wash hands and face thoroughly after handling.
- Do not breathe mist, vapors, spray.
- If eye irritation persists: Get medical advice.
- Wash contaminated clothing before reuse.
- Store locked up.
- Use only outdoors or in a well-ventilated area.

- Do not handle until all safety precautions have been read and understood.
- Contaminated work clothing must not be allowed out of the workplace.
- Wear protective gloves, protective clothing, eye protection.
- If inhaled: Remove person to fresh air and keep comfortable for breathing.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Dispose of contents and container in accordance with local regulations.

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations. See Section 13.

Hazards not otherwise classified (HNOC): None

Unknown acute toxicity: <1% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Chlorothalonil	1897-45-6	5%
Propylene glycol	57-55-6	1 - 5%
Amorphous silica	112926-00-8	1 - 2%
Nonhazardous ingredients	Various	Balance

4. FIRST AID MEASURES

Eye Contact	Rinse eyes cautiously with water for several minutes. Remove any contact lenses if easy to do, and continue rinsing. If discomfort or irritation persists contact a physician.
Skin Contact	Wash with soap and water. If injury occurs, or if discomfort or irritation persists or rash occurs, 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 you feel unwell, call a poison control center or 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 prevent exposure above published Threshold limits.

Most important symptoms and effects, both acute and delayed: See Section 11.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. Consult physician if discomfort or irritation persists. Get medical advice or attention if you feel unwell.

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 extinguisher 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 (bunker) gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use dust mask and gloves as needed or other reasonable personal protective equipment as required to prevent contact with eyes or skin. 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 dust mask and/or reasonable personal protective equipment as required to avoid breathing dusts. Moisten or cover powder spill with plastic sheet or tarp to minimize spreading. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Soak up excess with inert absorbent material. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Safe Handling	Obtain special instructions before use. Read and understand all safety precautions before handling. Use only outdoors or in a well-ventilated area. Do not breathe mist, vapors, spray. Use personal protective equipment as required to avoid breathing product dusts or mists, and to prevent eye contact. Wash hands thoroughly after handling.
Storage Conditions	Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children.
Incompatible materials	Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	OSHA PEL	ACGIH TLV	Other
Chlorothalonil	Not Established	Not Established	10 mg/m ³ TWA (Syngenta)
Propylene glycol	Not Established	Not Established	10 mg/m ³ TWA (AIHA)
Amorphous silica	80 mg/ m ³ / % SiO ₂ (TWA)	Not Established	6 mg/m ³ TWA (NIOSH)
Nuisance Dusts	10 mg/m ³ (TWA- Total dust)	15 mg/m ³ (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	10 mg/m ³ TWA total dust; 5 mg/m ³ TWA respirable (NIOSH)

Engineering controls: Use with adequate ventilation and follow safe work practices to prevent dust buildup in air.

Individual protection measures

Wear protective gloves, protective clothing, eye protection.

Eye protection	Safety glasses, or goggles if eye contact is likely. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Skin and Body Protection	Gloves and standard work 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 work clothing must not be allowed out of the workplace.

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 Limit 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

Health effects information

Likely routes of exposure: Dermal, Inhalation

Mildly irritating to skin. Material rarely causes an allergic skin reaction.
May be irritating to respiratory tract. This is rarely observed.

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Eye irritation, skin irritation, Allergic skin reaction, Drowsiness or dizziness, Respiratory system effects.

Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion: Oral (LD50 Rat): 9000 mg/kg body weight
Dermal (LD50 Rat) : > 2000 mg/kg body weight
Inhalation (LC50 Rat) : > 0.704 mg/l air - 4 hours
Eye Contact: Moderately Irritating (Rabbit)
Skin Contact: Mildly Irritating (Rabbit)
Skin Sensitization: A skin sensitizer, although material rarely causes an allergic skin reaction.

Reproductive/Developmental Effects: Chlorothalonil: Did not show reproductive toxicity effects in animal experiments. Did not show teratogenic effects in animal experiments.

Chronic/Subchronic Toxicity Studies:

Chlorothalonil: In dogs, 1 year administration caused a significant decrease in body weight gain and increases in absolute liver and kidney weights.

Neurotoxicity: No evidence in regulatory studies.

Carcinogenicity:

Chlorothalonil: IARC Group 3 carcinogen. Chlorothalonil causes kidney tumors in rats and mice via a nongenotoxic mode of action secondary to target organ toxicity. IARC identifies chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans).

Propylene glycol: Not listed as a carcinogen

Silica, amorphous: IARC Group 3 carcinogen

Mutagenicity: Chlorothalonil did not show mutagenic effects in animal experiments.

Toxicity of Other Components

Propylene Glycol : Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Silica, amorphous: Dusts in high concentrations may cause skin, eye and respiratory tract irritation.

Target Organs

Chlorothalonil: Lung, kidney

Propylene Glycol: CNS, kidney, liver

Silica, amorphous: Skin, eye, respiratory tract

12. ECOLOGICAL INFORMATION

Eco-Acute ToxicityChlorothalonil:

- Green Algae 5-day EC₅₀ 190 ppb
- Bird (Mallard Duck) LD₅₀ Oral > 4640 mg/kg
- Invertebrate (Water Flea) 48-hour EC₅₀ 70 ppb
- Fish (Rainbow Trout) 96-hour LC₅₀ 47 ppb

Persistence and degradability Not persistent in soil or water

Bioaccumulation Low bioaccumulation potential.
 Mobility Low mobility in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal of wastes:

This product is a non-hazardous waste material.
 Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

No US Federal special packaging considerations at the date of this document. Follow local regulations.

14. TRANSPORT INFORMATION

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

Pesticide Registration:

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: Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eye, or clothing. Avoid breathing spray mist Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
 Chronic Health Hazard

Section 313 Toxic Chemicals: Chlorothalonil (CAS No. 1897-45-6)

California Proposition 65: This product contains a chemical known to the State of California to cause cancer.

CERCLA/SARA 304 Reportable Quantity (RQ): None

RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable

TSCA Status: Exempt from TSCA, subject to FIFRA

TSCA (USA): Complies

General Product Information: This product is not federally regulated as a hazardous material.

Clean Air Act: No information is available.

Clean Water Act: No information is available.

State Regulations – General:

Component Analysis – State Chlorothalonil is listed on state lists of hazardous substances, as follows:

Component	CAS#	CA	MA	MN	NJ	PA	RI
Chlorothalonil	1897-45-6	Yes	No	Yes	Yes	Yes	No

16. OTHER INFORMATION

HMIS Hazard Ratings: Health: 2 Flammability: 1 Reactivity: 0 (Range: 0 is minimal, 4 is Extreme)

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.