

# SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product identifier:** GardenTech Daconil Fungicide Concentrate – 67572-82-71004

**Distributor Name:** TechPac, LLC.  
**Address:** 1000 Parkwood Circle, Ste 700  
Atlanta, GA 30339

**Telephone number:** 866-945-5033

**Medical Emergency:** 800-420-9347      **Transportation Emergency:** 800-424-9300

**Recommended use:** Controls leaf spots, rust, blights, fruit rots, mildews, scab, molds on vegetables, fruits, roses, shrubs, trees and ornamentals. Read entire label and use strictly in accordance with label precautionary statements and directions.

**Restrictions on use:** It is a violation of federal law to use this product in a manner inconsistent with its labeling.

**Date of Preparation:** September 11, 2014

## 2. HAZARD(S) IDENTIFICATION

**Classification:**

Physical	Health
Not hazardous	Acute Toxicity Category 2 (Inhalation) Eye Damage Category 1 Skin Sensitization Category 1A Specific Target Organ Toxicity – Single Exposure Category 3 (irritation) Carcinogen Category 2

**Label Elements**



**DANGER**

Fatal in inhaled  
Causes serious eye damage.  
May cause allergic skin reaction.  
May cause respiratory irritation.  
Suspected of causing cancer.

# SAFETY DATA SHEET

Obtain special instructions before reuse.  
Do not handle until all safety precautions have been read and understood.  
Avoid breathing mist or spray.  
Use only outdoors or in a well-ventilated area.  
Wear respiratory protection, protective gloves, and eye protection.  
Contaminated clothing should not be allowed out of the workplace.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Immediately call a POISON CENTER or doctor.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.  
IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice.  
Wash contaminated clothing before reuse.  
IF exposed or concerned: Get medical advice.

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Dispose of in accordance with local, regional, and national regulations

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Percent
Propylene Glycol	57-55-6	70.4
Chlorothalonil	1897-45-6	29.6

## 4. FIRST-AID MEASURES

**Inhalation:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison center or doctor for further treatment advice.

**Skin contact:** Take off contaminated clothing. Immediately skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**Eye contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison center or doctor for treatment advice.

**Ingestion:** Immediately call a poison center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Most important symptoms/effects, acute and delayed:** May cause severe eye irritation and possible damage. Prolonged contact may cause skin irritation. Contact may cause allergic skin reaction (sensitization). Inhalation may cause irritation. Product can be fatal if inhaled in high concentrations.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention is required for eye contact and inhalation.

## 5. FIRE-FIGHTING MEASURES

## GardenTech Daconil Fungicide Concentrate

**Extinguishing media:** Use media appropriate for the surrounding fire.

**Specific hazards arising from the chemical:** Product may burn under fire conditions. Combustion may produce oxides of carbon.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Wear appropriate protective clothing and equipment as described in Section 8. Prevent inhalation of mists and spray. Prevent contact with eyes, skin and clothing.

**Environmental Precautions:** Prevent spill from entering sewers and water courses. Report releases as required by local and national authorities.

**Methods and materials for containment and cleaning up:** Collect with an inert absorbent and place into a suitable container for disposal.

### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Refer to pesticide label for additional safety precautions and instructions for use. Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high schools), campgrounds, churches, and theme parks. Do not apply this product in a way that will contact other persons or pets, either directly or through drift. Keep people and pets off treated areas until dry. For normal outdoor use: Prevent breathing mist and spray. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Promptly remove and launder any contaminated clothing. Processing and Packaging: Wear appropriate personal protective equipment as described in Section 8. Wear suitable protective clothing to avoid contamination of personal clothing. Do not allow contaminated work clothes out of the workplace.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry (preferably locked) place inaccessible to children or pets.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure guidelines:**

Propylene glycol	None Established
Chlorothalonil	None Established

**Appropriate engineering controls:** Use only with adequate ventilation. For processing and packaging, use with adequate general or local exhaust ventilation to minimize exposure.

**Individual protection measures:**

**Respiratory protection:** None needed when used with adequate ventilation. For processing and packaging: if exposure limits are exceeded, a NIOSH approved organic vapor/dust/mist respirator is

## GardenTech Daconil Fungicide Concentrate

recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

**Skin protection:** Impervious gloves such as rubber recommended for bulk handling. Wear coveralls over a short-sleeve shirt and pants when mixing and applying this product.

**Eye protection:** Chemical safety goggles recommended.

**Other:** None known.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance (physical state, color, etc.):** Liquid.

**Odor:** Odorless.

<b>Odor threshold:</b> Not applicable	<b>pH:</b> 6-8
<b>Melting point/freezing point:</b> Not applicable	<b>Boiling Point:</b> Not applicable
<b>Flash point:</b> Not flammable	<b>Evaporation rate:</b> Not applicable
<b>Flammability (solid, gas):</b> Not applicable	<b>VOC:</b> Not applicable
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> $5.7 \times 10^{-7}$ mmHg @ 77°F (25°C) (chlorothalonil)	<b>Vapor density:</b> Not applicable
<b>Relative density:</b> 1.17	<b>Solubility(ies):</b> 0.81 mg/l @ 77°F (25°C) (chlorothalonil)
<b>Partition coefficient: n-octanol/water:</b> 3.05 (chlorothalonil)	<b>Auto-ignition temperature:</b> Not available
<b>Decomposition temperature:</b> Not available	<b>Viscosity:</b> Not applicable

### 10. STABILITY AND REACTIVITY

**Reactivity:** Not reactive under normal conditions of use.

**Chemical stability:** Stable.

**Possibility of hazardous reactions:** None known.

**Conditions to avoid:** None known.

**Incompatible materials:** Strong oxidizers.

**Hazardous decomposition products:** Thermal decomposition may yield carbon oxides and nitrogen.

### 11. TOXICOLOGICAL INFORMATION

#### Acute effects of exposure:

**Inhalation:** Product can be fatal if inhaled. Inhalation may cause irritation of the mucous membranes and upper respiratory tract.

**Ingestion:** No adverse effects are expected for small quantities ingested. Ingestion of large quantities may cause gastrointestinal irritation with diarrhea and vomiting.

**Skin contact:** Prolonged skin contact may cause skin irritation. Repeated contact may cause allergic skin reaction (sensitization).

**Eye contact:** Causes severe eye irritation with possible eye damage.

**Chronic Effects:** In dogs, 1 year administration of Chlorothalonil caused a significant decrease in body weight gain and increases in absolute liver and kidney weights. Chronic dietary exposure to Propylene glycol caused kidney and liver injury in experimental animals

**Sensitization:** Product may cause skin sensitization.

## GardenTech Daconil Fungicide Concentrate

**Germ Cell Mutagenicity:** Neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. Chlorothalonil was negative in the Ames assay and the micronucleus test in mice bone marrow.

**Reproductive Toxicity:** None of the components are reproductive hazards. Chlorothalonil did not cause teratogenic effects in rabbit or rats in oral studies.

**Carcinogenicity:** Chlorothalonil is classified by IARC as Possibly Carcinogenic to Humans (2B). No evidence of carcinogenicity in dogs after administration for up to one year. Treatment related increases in the incidence of renal tubular and carcinoma re observed in rats and male mice. Squamous cell adenomas and carcinomas were also observed in the forestomach of both species. The forestomach tumors seen in rodent studies re not relevant to human health, as humans do not possess an anatomical equivalent of the rodent forestomach. The relevance of renal tumors to human health is unclear, although metabolism data suggest that the dog, a species that is resistant to chlorothalonil-induced renal injury, may be more representative of humans than the rat. Tumor formation has been related to a non-genotoxic mechanism of action for which threshold levels have been established in rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels. In addition, surveillance of chlorothalonil plant workers for over twenty years has not demonstrated any increase in oncogenic potential to humans. None of the other components are listed as carcinogens or suspected carcinogens by IARC, NTP, ACGIH or OSHA.

**Acute Toxicity Values:** Calculated ATE (inhalation): 0.34 mg/l (mist)

Propylene Glycol: Oral rat LD50: 22,000 mg/kg; Inhalation rabbit LC50: >317,042 mg/m<sup>3</sup>/2 hr; Skin rabbit LD50: >2000 mg/kg

Chlorothalonil: Oral rat LD50: >10,000 mg/kg; Inhalation rat LC50: 0.1 mg/L/4hr; Dermal rat LD50: >2500 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity values:** Product is very toxic to the environment with long-lasting effects.

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and run-off may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

Chlorothalonil: Bees LC/EC50: >181 ug/bee; Daphnia magna LC50/EC50: 0.068 ppm; Trout LC/EC50: 0.04 ppm; Bluegill LC/EC50: 0.06 ppm; Birds – Bobwhite Quail LC50/EC50: >5200 ppm/8-days; Birds – Mallard Duck LC50/EC50: >5,200 ppm/8-hr

**Persistence and degradability:** Chlorothalonil is not persistent in soil or water.

**Bioaccumulative potential:** Chlorothalonil has a low to moderate bioaccumulation potential.

**Mobility in soil:** Chlorothalonil has low mobility in soil.

**Other adverse effects:** None known.

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations. No specific disposal method is recommended.

Pesticide disposal: Nonrefillable container; do not reuse or refill this container. If empty: Place in trash or offer for recycling, if available. If partly filled: Call your local solid waste disposal agency for disposal instructions. Never place unused product down any indoor or outdoor drain. Container disposal: Triple rinse (or equivalent) container promptly after emptying. 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

## GardenTech Daconil Fungicide Concentrate

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.

### 14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT*		Not regulated			
TDG		Not regulated			
IMDG	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil)	9	III	Yes
IATA	UN3082	Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil)	9	III	Marine Pollutant

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable – product is transported only in packaged form.

**Special precautions:** None known.

### 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**FIFRA Labeling:**

#### PRECAUTIONARY STATEMENTS

##### Hazards to Humans & Domestic Animals

##### WARNING

Causes substantial but temporary eye irritation. Causes skin irritation. Harmful if inhaled, swallowed, or absorbed through the skin. Do not get in eyes, on skin or on clothing. Avoid breathing spray mist. Prolonged or repeated skin contact may cause allergic reaction in some individuals. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing before reuse. Wear goggles or face shield, coveralls or a short-sleeve shirt and pants, and rubber gloves when mixing and applying this product.

**Note to User:** This product may produce temporary allergic side effects characterized by redness of the eyes, mild bronchial irritation and redness or rash in exposed skin areas. Persons having an allergic reaction should contact a physician.

**Safety, health, and environmental regulations specific for the product in question.**

## GardenTech Daconil Fungicide Concentrate

**CERCLA:** This product is not subject to CERCLA release reporting. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Acute Health, Chronic Health

**EPA SARA 313:** This product contains the following chemicals regulated under SARA Title III, section 313:

1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro (Chlorothalonil) 1897-45-6 29.6%

**EPA TSCA Inventory:** All components of this product are listed on TSCA or exempt.

**California Proposition 65:** This product contains the following chemicals known to the state of California to cause cancer and/or reproductive harm: Chlorothalonil.

### CANADA:

**Canadian CEPA:** All components are listed on the Canadian DSL or exempt.

**Canadian WHMIS Classification:** Class D-1-A (Materials causing immediate and serious toxic effects), D-2-A (Materials causing other toxic effects), Class E (Corrosive materials)

This product has been classified under the CPR and this SDS discloses information elements required by the CPR.

## 16. OTHER INFORMATION

**NFPA Rating:** Health = 3    Flammability = 1    Instability = 0  
**HMIS Rating:** Health = 3\*    Flammability = 1    Physical Hazard = 0

**SDS Revision History:** New SDS

**Date of preparation:** September 11, 2014

### NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. TechPac, LLC. shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.