

1. PRODUCT AND COMPANY IDENTIFICATION

Date of issue: May 2015
Product Name: Liquid Ornamental and Vegetable Fungicide
EPA Reg. No. 829-287
Recommended Use: Fungicide
Restrictions on Use: See label directions
Company: Southern Agricultural Insecticides, Inc
P.O. Box 218
Palmetto, FL 34220
(941) 722-3285

Emergency Telephone Numbers: Chemtrec (800) 424-9300 (24 hour transportation spill response)
Medical: Rocky Mountain Poison Control Center (866) 673-6671 (24hrs)

2. HAZARDS IDENTIFICATION

Classifications: Inhalation: Category 3
Skin Sensitizer: Category 1 B
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

Signal Word (OSHA): Danger

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

Hazard Symbols:



Precautionary Statements: Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapors, spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection.
If on skin: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice.
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.
If exposed or concerned: Get medical advice/attention.

If eye irritation persists: Get medical advice.
Call a poison center, doctor or Syngenta if you feel unwell.
See Section 4 First Aid Measures.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Tetrachloroisophthalonitrile	Chlorothalonil	1897-45-6	12.5%
1,2-Propanediol	Propylene Glycol	57-55-6	< 4%
Other ingredients			Trade Secret

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications

4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Eye irritation
Allergic skin reaction
Drowsiness or dizziness
Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.
Treat symptomatically.
Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

May decompose under fire condition emitting gases and vapors (i.e. hydrogen chloride) which may be toxic and irritating to the respiratory tract.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas

where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR RESIDENTIAL APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Propylene Glycol	Not Established	Not Established	10 mg/m ³ TWA	AIHA
Chlorothalonil	Not Established	Not Established	0.1 mg/m ³ TWA	Syngenta
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact:

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light gray liquid

Odor: Slight

Odor Threshold:	Not Available
pH:	6.1
Melting point/freezing point:	Not Applicable
Initial boiling point and boiling range:	760 mm Hg: >100OC (Lowest boiling component)
Flash Point (Test Method):	Not Applicable
Flammable Limits (in Air):	Non combustible
Flammability:	Not Applicable
Vapor Pressure: Chlorothalonil	0.00000057mmHg @ 7rF (25°C) Product: Approximately 23 mm Hg @ 25o C
Vapor Density:	Not Available
Relative Density:	1.34 glml (water = 1)
Solubility (ies): Chlorothalonil	0.81 mg/l @ 77° F (25°C) Product: Dispersible in water
Partition coefficient: n-octanol/water:	Not Available
Autoignition Temperature:	Not Applicable
Decomposition Temperature:	Not Available
Viscosity:	Not Available
Other:	None

10. STABILITY AND REACTIVITY

Reactivity:	Not reactive.
Chemical stability:	Stable under normal use and storage conditions.
Possibility of hazardous reactions:	Material is not known to polymerize.
Conditions to Avoid:	None known.
Incompatible materials:	None known.
Hazardous Decomposition Products:	None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure:	Dermal, Inhalation
Symptoms of exposure:	Eye irritation, Drowsiness or dizziness, Respiratory irritation
Delayed, immediate and chronic effects of exposure:	Possible carcinogenicity, Eye irritation, Allergic skin reaction, Drowsiness or dizziness, Respiratory system effects

Data submitted in this part was determined from similar mixtures containing four times the active ingredient. No revision for the reduction in concentration has been applied to the data as given.

Ingestion:	Oral (LD50 Rat) :	9000 mg/kg body weight
Dermal:	Dermal (LD50 Rat)	> 2000 mg/kg body weight
Inhalation:	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.	

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: Chlorothalonil causes kidney tumors in rats and mice via a nongentoxic mode of action secondary to target organ toxicity.

Did not show mutagenic effects in animal experiments.

IARC identifies chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans).

Chemical Name	NTP/IARC/OSHA Carcinogen
1,2-Propanediol	No
Tetrachloroisophthalonitrile	IARC Group 2B

Other Toxicity Information

Studies on rats and mice have suggested that technical chlorothalonil (97), when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. 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.

Additional Toxicity Information:

May cause irritation of the gastrointestinal tract following ingestion of large amounts.

Mildly irritating to skin. Material rarely causes an allergic reaction.

May be irritating to the respiratory tract. This is rarely observed.

Material is not readily absorbed through intact skin.

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.

Target Organs

Active Ingredients

Chlorothalonil:	Lung, kidney
Inert Ingredients	Not Applicable
Propylene Glycol:	CNS, kidney, liver

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Chlorothalonil:

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

Environmental Fate

Chlorothalonil:

The information presented here is for the active ingredient, chlorothalonil.
Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil.
Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal:

Do not reuse product containers. Dispose of contents/container in accordance with local regulation. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or 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.

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Non-Bulk: Not regulated

Tank Truck:

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

15. REGULATORY INFORMATION

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, eyes, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

EPA Registration Number(s): 829-287

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

Section 313 Toxic Chemicals: Chlorothalonil 54.0 (CAS No. 1897-45-6)

California Proposition 65:

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

CERCLA/ISARA 304 Reportable Quantity (RQ): None

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

TSCA Status: Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2

Flammability: 1

Instability: 1

HMIS Hazard Ratings

Health: 2

Flammability: 1

Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Southern Agricultural Insecticides, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Southern Agricultural Insecticides, Inc has been advised of the possibility of such damages.