

## DREXEL CHLOROTHALONIL – ZN FUNGICIDE

### SECTION 1: MATERIAL IDENTIFICATION

**Product Name:** Drexel Chlorothalonil - Zn Fungicide  
**EPA Reg. No.:** 19713-709  
**Product Usage:** Fungicide

**Manufacturer:** Drexel Chemical Company  
**Address:** 1700 Channel Avenue  
 PO Box 13327  
 Memphis, Tennessee, 38113-0327, USA  
 901-774-4370

**Emergency Telephone Numbers:** CHEMTREC 800-424-9300  
 DREXEL CHEMICAL COMPANY 901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Refer to SECTION 15: REGULATORY INFORMATION for explanation.

### SECTION 2: HAZARD IDENTIFICATION

(As defined by the OSHA Hazard Communication Standard, 29)

**Label Elements:**  
**Signal Word:**

**DANGER**



**Classifications:**  
**Hazard Class:**

<u>Toxicity Study:</u>	<u>Category:</u>
Acute Toxicity, Inhalation	Category 2
Skin corrosion/ irritation	Category 2
Serious eye damage / irritation	Category 2B
Skin sensitizer	Category 1
Carcinogenicity	Category 2
Specific Target Organs: Single	Category 3
Specific Target Organs: Repeated	Category 2
Hazard to Aquatic Environment, short term (Acute)	Category 1
Hazard to Aquatic Environment, long-term (Chronic)	Category 2

**Hazard Statements:**

<u>H Code:</u>	<u>Statement:</u>
H330	Fatal if inhaled.
H315	Causes skin irritation.
H320	Causes eye irritation.
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer.
H371	May cause damage to organs through prolonged or repeated exposure
H401	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects

**Precautionary Statements:**  
**Prevention:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
In case of inadequate ventilation, wear respiratory protection.  
Avoid release into the environment.

**Response:**

**If in Eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get immediate medical advice/attention.  
**If Swallowed:** Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.  
**If Inhaled:** Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER or doctor if you feel unwell.  
**If on Skin or Clothing:** Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.  
**If exposed or concerned:** None available, get medical attention.

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

**Disposal:** Dispose of contents/container in accordance with your local or area regulatory authorities.

**Specific hazards:** None available.

### SECTION 3: COMPOSITION INFORMATION

<u>Chemical Name:</u>	<u>Synonym:</u>	<u>CAS No.:</u>	<u>EC No.:</u>	<u>RTECS:</u>	<u>% By Wt.:</u>
<b>Active Ingredient:</b> Chlorothalonil	Chlorothalonil; 2, 4, 5, 6-Tetrachloroisophthalonitrile	1897-45-6	217-588-1	NT2600000	38.5%
<b>Inert Ingredients:</b> Proprietary Mixture	N/A	N/A	N/A	N/A	61.5%

### SECTION 4: FIRST-AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

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

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have 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.

**Skin/Clothing Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**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.

**Indication of Medical Attention and Special Treatment Needed:** None / Treat symptomatically. If medical advice is needed, have product container or label with you. If temporary irritation occur, persons may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

## SECTION 5: FIRE FIGHTING MEASURES

**Fire Fighting Media:** Use appropriate extinguishing media for surrounding fire. Dry chemical, CO<sub>2</sub>, Fog, Water spray.  
**Unsuitable Extinguishing Media:** Do not use a heavy water stream. A heavy water stream may spread burning liquid.


**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Cool closed containers exposed to fire with water spray, if possible. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

**Specific Fire Hazards:** Flammability classification (OSHA 29 CFR 1910.1200): N/Av  
Flash point: > 200°F  
Lower flammable limit (% by volume): N/Av  
Upper flammable limit (% by volume): N/Av

**Hazardous Combustion Products:** Hydrogen chloride.  
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

**National Fire Protection Association:**

<b>NFPA:</b>  	<b>Health</b>	<b>Fire</b>	<b>Reactivity</b>
	3	1	0

**Ratings:      4-Extreme                  3-High                  2-Moderate                  1-Slight                  0-Insignificant**

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:**  
Isolate area. Evacuate the area. Keep unnecessary and unprotected personnel from entering the area. Refer to SECTION 7: HANDLING AND STORAGE, for additional precautionary measures. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

**Environmental Precautions:**  
Do not flush into surface water or sanitary sewer system. Prevent from entering soil, ditches, sewers, waterways and/or groundwater. Refer to SECTION 12: ECOLOGICAL INFORMATION.

**Steps to be taken if Material is Released or Spilled:**  
Control the spill at its source.  
Small spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Prevent entry into waterways, sewers, basements or confined areas.

**Large spills:** Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Contact Drexel Chemical Company for clean-up assistance. Refer to SECTION 13: DISPOSAL CONSIDERATIONS, for additional information. Prevent entry into waterways, sewers, basements or confined areas.

**SECTION 7: HANDLING AND STORAGE**

**KEEP OUT OF REACH OF CHILDREN**

**Handling:** **General Handling:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing dust. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Wear chemical protective equipment when handling. Wear long-sleeved shirt, long pants and shoes with socks when handling. Keep away from heat, sparks and flame. Refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

**Storage:** Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Incompatible Products: Strong acids. Strong bases. Strong oxidizers.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Occupational Exposure Limits:**

Components:	OSHA PEL	ACGIH TLV
Proprietary Mixture	5 mg/m <sup>3</sup> (fume) -TWA 15 mg/m <sup>3</sup> (total dust) -TWA 5 mg/m <sup>3</sup> (respirable fraction) -TWA	2 mg/m <sup>3</sup> (respirable fraction) -TWA 10mg/m <sup>3</sup> (respirable fraction) -STEL

**THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.**

**Engineering Controls:**

**Ventilation:** Investigate engineering techniques to reduce exposures. When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with an eyewash facility / station and safety shower. Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

**Personal Protection:**

**Eye/Face Protection:** Eye contact should be avoided through the use of chemical safety glasses, goggles, or a face shield selected in regard to exposure potential. Wear chemical splash goggles to prevent vapors or mists from entering the eyes. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

**Ingestion:** Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face thoroughly with soap and water before smoking or eating. Avoid getting wash water in eyes.

**Hand Protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Viton, Polyvinyl chloride ("PVC" or "vinyl").

**Skin Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work

area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

**Respiratory Protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of dusts are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Property</b>	<b>Reported Value</b>
Physical State	Liquid
Appearance / Color	Pink
Odor	Mild odor
Odor threshold	Not available
pH	4.0 – 5.0
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	> 200°F
Evaporation rate	Not available
Flammability	Not available
Upper flammability/explosive limits	Not available
Lower flammability/explosive limits	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	11.00 lbs./ gal.
Solubility in water	Not available
Solubility in organic solvents	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	1000 - 1500cP
Explosive properties	Not available
Oxidizing properties	Not available
Dissociation Constant	Not available

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity:</b>	Thermally stable at typical use temperatures and in closed containers.
<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to Avoid:</b>	Keep out of reach of children. Store away from foodstuffs, animal feed, and incompatibles. Direct sunlight. Extremely high or low temperatures.
<b>Incompatible Materials:</b>	Strong acids. Strong bases. Strong oxidizers.
<b>Hazardous Decomposition Products:</b>	May emit toxic fumes under fire conditions. Hydrogen chloride. Carbon oxides (CO, CO <sub>2</sub> ).

**SECTION 11: TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY**

<b>Potential routes of exposure/potential health effects:</b>		Skin contact. Eye contact. Ingestion.	
<b>Acute Oral:</b>	<b>LD<sub>50</sub> (Rat):</b>	Chlorothalonil	>5,050 mg/kg
		Proprietary mixture	>5,000 mg/kg
<b>Acute Dermal:</b>	<b>LD<sub>50</sub> (Rat):</b>	Chlorothalonil	>5,050 mg/kg
		Proprietary mixture	>2,000 mg/kg
<b>Acute Inhalation:</b>	<b>LC<sub>50</sub> (Rat):</b>	Chlorothalonil	>2mg / L
<b>Eye Irritation:</b>	<b>(Rabbit):</b>	Chlorothalonil	Cause eye irritation.
		Proprietary mixture	
<b>Skin Irritation:</b>	<b>(Rabbit):</b>	Chlorothalonil	May cause skin irritation.
		Proprietary mixture	
<b>Skin Sensitization:</b>	<b>(Guinea Pig):</b>	Chlorothalonil	May cause an allergic skin reaction.
		Proprietary mixture	
<b>Chronic Toxicity:</b>	No data available		
<b>Carcinogenicity:</b>	IARC identifies Chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans). Not listed by OSHA, NTP, nor ACGIH.		
<b>Mutagenicity:</b>	No data available		
<b>Teratogenicity:</b>	No data available		
<b>Reproductive Toxicity:</b>	No data available		
<b>Developmental Toxicity:</b>	No data available		
<b>Specific target organ toxicity- single exposure:</b>	May cause respiratory irritation.		
<b>Specific target organ toxicity- repeated exposure:</b>	No data available / Not classified		
<b>Other Hazards Effects:</b>	No data available		

**SECTION 12: ECOLOGICAL INFORMATION**

**ENVIRONMENTAL FATE**

Chlorothalonil / Proprietary Mixture	Very toxic to aquatic life with long lasting effects. This product is toxic to aquatic invertebrates and wildlife.
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**ECO-ACUTE TOXICITY**

<b>Aquatic Toxicity:</b>	<b>Fish, LC<sub>50</sub> 96 hour</b>	Chlorothalonil	0.012 mg/l
		Proprietary Mixture	No data available
	<b>Bluegill Sunfish, LC<sub>50</sub> 96 hour</b>	Chlorothalonil	No data available
		Proprietary Mixture	No data available

	<b>Daphnia magna, LC<sub>50</sub> 48 hour</b>	Chlorothalonil Proprietary Mixture	0.0342 - 0.143 mg/l
<b>Arthropod Toxicity:</b>	<b>Bees, Acute LD<sub>50</sub></b>	Chlorothalonil Proprietary Mixture	46.26 µg/bee No data available
<b>Bird Toxicity:</b>	<b>Mallard Duck, LD<sub>50</sub></b>	Chlorothalonil Proprietary Mixture	2,000 mg/kg No data available
	<b>Bobwhite Quail, LD<sub>50</sub></b>	Chlorothalonil Proprietary Mixture	>2,150 mg/kg No data available
<b>Algal Toxicity:</b>	<b>Green Algae, LC<sub>50</sub> 96 hour</b>	No data available	
<b>Soil Organism Toxicity:</b>	<b>Earthworm acute toxicity</b>	No data available	
<b>Persistence and degradability:</b>	No data available		
<b>Bioaccumulation:</b>	No data available		
<b>Mobility in soil:</b>	No data available		
<b>Other adverse effects:</b>	Do not contaminate water supplies, lakes, streams, ponds or drains with this product.		

### SECTION 13: DISPOSAL CONSIDERATIONS

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

### SECTION 14: TRANSPORT INFORMATION

<b>DOT:</b>	<b>Packages ≤ 119 gallons</b>	Not Regulated
	<b>Packages &gt; 119 gallons</b>	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant
<b>IMDG:</b>	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant	
<b>IATA / ICOA:</b>	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant	
<b>UN Identification No.:</b>	UN3082	
<b>Proper Shipping Name:</b>	Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)	
<b>Hazard Class:</b>	9	
<b>Packing Group:</b>	III	
<b>Reportable Quantity:</b>	None / Not listed	
<b>Environmental Hazard:</b>	Marine Pollutant	
<b>Freight Description:</b>	Agriculture Fungicide, liquid, n.o.s.	
<b>ERG Guide No.:</b>	171	
<b>Transport Information Note:</b>	Non-Bulk, Not Regulated (DOT defined as container capacities less than or equal to 119 gallons)	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

**SECTION 15: REGULATORY INFORMATION**

**OSHA Hazard Communication Standard:** This product contains no hazardous components as defined under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

**Pesticide Registration:** This product is a pesticide registered by the Environmental Protection Agency (EPA) and is subject to certain FIFRA 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.

**EPA Reg. No.:** 19713-709  
**FIFRA Label Signal Word:** CAUTION  
**FIFRA Label Information:** KEEP OUT OF REACH OF CHILDREN  
**FIFRA Label Information:** CAUTION: Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks and shoes. Wear appropriate protective eyewear.

This product is not for NOT FOR RESIDENTIAL USE

**EPCRA SARA Title III Classification:**  
**Section 302:** Extremely Hazardous Substance Notification: This material is not known to contain any Extremely Hazardous Substances.

**Sections 311 and 312:**  
 Immediate (Acute) Health Hazard: Yes  
 Delayed (Chronic) Health Hazard: Yes  
 Fire Hazard: No  
 Reactive Hazard: No  
 Sudden Release of Pressure Hazard: No

**Section 313 Toxic Release Inventory (TRI):** Chlorothalonil (CAS 1897-45-6)

**CERCLA/SARA 304 Reportable Quantity (RQ):** None / Not listed/ Not available

**RCRA Hazardous Waste Classification (40 CFR 261):** Not listed / Not available

**US EPA Toxic Substances Control Act (TSCA):** All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

<b>California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):</b>	Chlorothalonil	Listed as causing:	Cancer
		Listing date:	01/01/1989
		Listing basis:	SQE
		Listed as causing:	Not listed
	Proprietary Mixture	Listing date:	Not listed
		Listing basis:	Not listed

This product contains chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

**International Inventories:**  
**TSCA** Complies



## SECTION 16: OTHER INFORMATION

**Date Issued:** February 21, 2020

**Date Supersedes:** -

**Revision:** 0

**For all non-emergency questions about this product, please contact:**

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PO Box 13327  
Memphis, Tennessee 38113-0327, USA

Phone: 901-774-4370  
Fax: 901-774-4666  
Website: [www.drexchem.com](http://www.drexchem.com)

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.