



Vabro™ Safety Data Sheet

NFPA HAZARD RATING	U.S. TRANSPORT SUMMARY																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center;">0</td> <td style="width: 15%;">Least</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td>Slight</td> <td style="text-align: center;">2</td> <td>Health</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td>Moderate</td> <td style="text-align: center;">0</td> <td>Flammability</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">3</td> <td>High</td> <td style="text-align: center;">0</td> <td>Reactivity</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">4</td> <td>Severe</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	0	Least					1	Slight	2	Health			2	Moderate	0	Flammability			3	High	0	Reactivity			4	Severe					<p>Not regulated by the U.S. DOT as a hazardous material for ground shipment in quantities less than 119 gallons. See Section 14 for additional information.</p>
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SECTION 1: IDENTIFICATION	
Product Name: Vabro™ EPA Registration #: 9779-320-33270 Product ID/Unity #: Not determined. Common Name: Organochlorine fungicide. Chemical Description: Chlorothalonil Recommended Uses: Agricultural Fungicide. See product label for complete list of uses and use sites. Restrictions for Use: See product label for information regarding restrictions on the use of this product.	MEDICAL EMERGENCY TELEPHONE NUMBER: 1-877-424-7452 (24hrs) Non-Emergency Business Inquiries: 1-855-494-6343 Mon – Fri 8am – 5pm (Central Standard Time)
Manufactured For: United Suppliers, Inc. P. O. Box 538 Eldora, IA 50627	
FOR EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL: CHEMTREC 1-800-424-9300 (24 hours)	

SECTION 2: HAZARDS IDENTIFICATION	
EMERGENCY OVERVIEW: Light gray to off-white liquid suspension. Slight chlorine odor. Causes substantial but temporary eye injury. May be fatal if inhaled. Harmful if absorbed through skin. Harmful if swallowed.	
POTENTIAL HEALTH EFFECTS: Eyes: Causes substantial but temporary eye injury. Skin: Harmful if absorbed through skin. Inhalation: May be fatal if inhaled. Ingestion: Harmful if swallowed. Preexisting Conditions: Skin contact may aggravate preexisting skin conditions. Inhalation of mists may aggravate preexisting respiratory conditions. Chronic Health Effects: Laboratory studies have indicated that chlorothalonil may have oncogenic potential. Worker exposure studies have shown that exposure levels are well below threshold levels.	
Carcinogenicity	NTP: Chlorothalonil Evidence of Carcinogenicity
	IARC: Chlorothalonil Group 2B
	OSHA: Not listed.
OSHA HCS 2012 CLASSIFICATION: Acute Inhalation Toxicity Category 2; Eye Irritation Category 2A; Carcinogenicity Category 2; STOT SE Category 3	
SIGNAL WORD: DANGER	
HAZARD STATEMENTS: Fatal if inhaled. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.	
<i>Continued on next page</i>	

Percent of product with unknown toxicity: 0%

PRECAUTIONARY STATEMENTS:

Prevention: Wash hands thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapor or spray. Use only outdoors or in a well ventilated area. Wear respiratory protection. Wear protective gloves, protective clothing, eye protection and face protection.

Response: **If inhaled:** Remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center (1-877-424-7452) or doctor for treatment advice.

If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

If exposed or concerned: Get medical advice/attention.

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

Disposal: Dispose of contents/container in accordance with Federal, state and local regulations. See Section 13 of the SDS for additional disposal information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	% (wt)	CAS Reg. #
Chlorothalonil	54.0%	1897-45-6
Propylene glycol	< 4.0%	57-55-6
See Section 8 for exposure limits.		

SECTION 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 mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eyes: 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 control center or doctor for treatment advice.

Skin: 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.

SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer or ordinary) for large fires. Water stream may spread flames.

Special Fire Fighting Procedures: Fire fighters should use self-contained breathing apparatus and full turnout gear. Prevent runoff of fire water. Avoid exposure to smoke.

Hazardous Combustion Products: Hazardous decomposition products – hydrogen cyanides, hydrogen chloride, nitrogen oxides.

Unusual Fire and Explosion Hazards: Not considered flammable but may burn at high temperatures. Not explosive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Environmental Precautions: Keep spilled product from entering sewers or waterways.

Methods for Containment: Contain spilled product by diking area with sand or earth.

Methods for Clean-up: Avoid dust formation. Vacuum, scoop, or sweep up material and place in a container for disposal. Do not place spilled material back in original container.

Other Information: None known.

SECTION 7: HANDLING AND STORAGE

Handling: RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the pesticide product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Storage: Store in secured, cool, dry areas designated specifically for pesticides, away from children, feed and food products and sources of heat. Keep containers closed when not in use. See pesticide product label for additional storage information.

Minimum Storage Temperature: Not determined.

Other Precautions: Incompatible products: Strong acids, strong bases, strong oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines			
Component:	OSHA PEL	ACGIH TLV	NIOSH REL
	Not established.	Not established.	Not determined.
NOTE TO END USERS: PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING LISTED IN THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PESTICIDE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING.			
Respiratory Protection: Use NIOSH/MSHA approved respirator for organic vapors. Use positive pressure contained breathing apparatus where emergency conditions or where exposure limits are exceeded.			
Engineering Controls:	Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.		
Protective Gloves: Wear chemical resistant gloves to prevent skin exposure.			
Eye Protection: Wear chemical goggles or safety glasses. Contact lenses are not eye protective devices.			
Other Protective Clothing or Equipment: Chemical resistant coveralls, apron and foot coverings.			
Work/Hygienic Practices: Never eat, drink, nor use tobacco in work areas. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet or applying cosmetics.			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Specific Gravity (H₂O=1):	1.36
Vapor Pressure (mm Hg):	Not determined.	Density (lbs/gallon):	11.3
Vapor Density (Air=1):	Not determined.	Freezing Point:	Not determined.
Solubility in Water:	Disperses in water.	Boiling Point/Range:	Not determined.
Viscosity:	Not determined.	pH (undiluted):	Not determined.
Appearance and odor:	Light gray to off-white liquid suspension. Slight chlorine odor.	Flash Point:	Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: None known.

Chemical Stability: Product is stable at ambient temperature and pressure, under normal storage and handling conditions.

Possibility of Hazardous Reactions: Will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: Hydrogen cyanides, hydrogen chloride, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Eye Effects (rabbit):	Causes substantial but temporary eye injury. May cause opacity which is reversible in 21 days.
Skin Effects (rabbit):	Slight irritant.
Acute Dermal Effects (rabbit):	LC ₅₀ > 2030 mg/Kg
Acute Inhalation Effects (rat):	LC ₅₀ = 2.11 mg/L male LC ₅₀ = 0.23 mg/L female May cause respiratory irritation.
Acute Oral Effects (rat):	LD ₅₀ = 5050 mg/kg

CHRONIC TOXICITY

Carcinogenicity:	Suspected of causing cancer (chlorothalonil). IARC group - 2B. National Toxicity Program (NTP) Status – Evidence of Carcinogenicity.
Mutagenicity:	Not classified.
Teratogenicity:	Not classified.
Reproductive Toxicity:	Not classified.

POTENTIAL HEALTH EFFECTS:

Eyes:	Substantial irritant.
Skin:	Slight irritant.
Inhalation:	May be fatal if inhaled.
Ingestion:	Harmful if swallowed. May cause gastric irritation.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY:**ECOTOXICITY DATA:**

Fish Acute and Prolonged Toxicity:	Chlorothalonil – LC ₅₀ = 23-84 ppb (freshwater fish spp); LC ₅₀ /EC ₅₀ 3.6 – 154 ppb (estuarine/marine organisms)
Aquatic Invertebrate Acute Toxicity:	Chlorothalonil – LC ₅₀ = 68 ppb (<i>D. magna</i>)
Aquatic Plant Toxicity:	Not determined.
Bird Acute and Prolonged Toxicity:	Not determined.
Honeybee Toxicity:	Not determined.

ENVIRONMENTAL EFFECTS:

Soil Absorption/Mobility:	Not determined.
Persistence and degradability:	Not determined.
Bioaccumulative Potential:	Not determined.
Other adverse effects:	Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste: Dispose of in accordance with applicable Federal, state and local laws and regulations.
Container: Triple rinse and recycle the container or dispose of in accordance with Federal, state and local laws and regulations.
See pesticide product label for full instructions on disposal.
RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORT INFORMATION

DOT:	Container capacities less than or equal to 119 gallons: This product is not regulated by the U.S. DOT as a hazardous material for ground shipment.
(Ground)	Container capacities greater than 119 gallons: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil) Marine Pollutant, Class 9, UN 3082, PG III
IMDG:	Classification not determined.
(Sea)	
IATA:	Classification not determined.
(Air)	
TDG:	Classification not determined.
(Canada)	

SECTION 15: REGULATORY INFORMATION

TSCA Inventory:**SARA Title III Information:**

Section 302 - Extremely hazardous substances: None listed.

Section 311/312 - Hazard Categories: Immediate (acute) health hazard. Delayed (chronic) health hazard.

Section 313 - The following chemicals are subject to the reporting requirements of Section 313 of Title III, Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

Chlorothalonil - 54%

CERCLA - This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): None listed.

EPA Registration 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 anticipated to be required on the pesticide label.

WARNING

Causes substantial but temporary eye injury. May be fatal if inhaled. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Harmful if swallowed. Do not breathe vapor or spray mist.

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer.

U.S. State Worker and Community Right-To-Know (RTK) Information (CT, IL, MA, MN, NH, NJ, PA, RI):

Chemical Name	CAS #	State(s)
Chlorothalonil	1897-45-6	MA, NJ, PA
Propylene glycol	57-55-6	NJ, PA

Canadian Domestic Substances List: Not determined. Product is not registered for sale in Canada.

WHMIS Classification: Not determined. Product is not registered for sale in Canada.

SECTION 16: OTHER

Disclaimer: The information presented herein is based on available data from reliable sources and is correct to the best of United Suppliers' knowledge. United Suppliers, Inc. makes no warranty, express nor implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

Revision Date: February 15, 2017 **Supersedes document dated:** April 6, 2016

Sections Revised: 2, 11, 15