

MATERIAL SAFETY DATA SHEET

VESPER

1. **CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**
INNICTIS CROP CARE, LLC
1550 W ASH, SUITE B
Windsor, CO 80550

PRODUCT NAME: VESPER **EPA REG. NO.:** 89168-24-89391
CHEMICAL NAME: Chlorpyrifos O, O-diethyl-O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate
CHEMICAL FAMILY: Organophosphate Insecticide
Hotline Numbers: National Pesticides Information Center (NPIC) at 1-800-858-7378 seven days a week, 6:30 am to 4:30 pm Pacific Time; Outside of these times call your poison control center at 1-800-222-1222.
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING: Maybe fatal if swallowed. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Avoid breathing vapors.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Chlorpyrifos O, O-diethyl-O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate	45	2921-88-2	0.1 mg/m ³
Other Ingredients Including			
Heavy Aromatic Petroleum Naphtha	55	64742-94-5	100 ppm

4. FIRST AID MEASURES

IF SWALLOWED: Immediately call a poison control center or doctor. Do not induce vomiting unless told to by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

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.

IF IN 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.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible. Call poison control center or doctor for further treatment advice.

PHYSICIAN TREATMENT: Chlorpyrifos is a cholinesterase inhibitor. Treat poisoning symptomatically. Baseline data are useful in detecting the level of exposure. Certain tests, such as plasma and red blood cell cholinesterase, may detect exposure level. Preferred antidote post exposure is Atropine, by injection only. If detected early, treat with 2 PAM/protopam or other Oximes in conjunction with Atropine. Use recommended antidote immediately after establishing an open airway and respiration in the event of serious acute poisoning. May pose an aspiration pneumonia hazard. Contains petroleum distillate.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >141°F

FLAMMABLE LIMITS (LFL & UFL): Not Established

EXTINGUISHING MEDIA: Use of foam, CO₂ or dry chemical is recommended.

HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation. Rapid decomposition can occur above 320°F.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing. Fight fire from upwind.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Pick up spilled liquid with absorbent material and sweep up for disposal. Place it and damaged unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state and federal regulations for proper disposal.

NOTE: Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water. Always wear proper protective equipment when working with the product.

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7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Do not contaminate water, food or feed by storage or disposal. Keep in original container in dry secured storage space. Do not permit contact with other pesticides and fertilizers. Do not store above 100°F for long periods of time. Crystals may form if stored below 20°F. If crystals form, store at 50° – 70°F and agitate to allow crystals to redissolve. Use product immediately, or dispose of it with the container in the manner prescribed below in the event that the container is damaged or a spill occurs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Not normally required, if mists/vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator for organic vapor and dust/mist.

EYE PROTECTION: Chemical goggles or shielded safety glasses when handling and mixing product.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks and chemical-resistant gloves.

Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

Personal Protective Equipment (PPE): Eye protection, long sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If not such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Amber-Brown liquid, Solvent odor

SOLUBILITY: Emulsifiable **pH:** 4-5

SPECIFIC GRAVITY (Water=1): 1.08 – 1.12 g/ml

BULK DENSITY: 9.00 – 9.34 lbs/gal.

VAPOR PRESSURE: Not established

BOILING POINT: Not established

PERCENT VOLATILE (by volume): 40% – 50%

EVAPORATION RATE: Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable under proper storage conditions.

CONDITIONS TO AVOID: Avoid heating above 100F. Chlorpyrifos undergoes exothermic decomposition at approximately 266 F, which can lead to higher temperatures and violent decomposition if generated heat is not removed.

IMCOMPATIBILITY: Strong alkalis, amines and oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Under fire conditions, hydrogen chloride, ethyl sulfide, diethyl sulfide and nitrogen oxides can be formed.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION – Based on a similar product

Acute Oral LD₅₀: 300 mg/kg (female)

Acute Dermal LD₅₀: >5,000 mg/kg

Eye Irritation: Causes moderate irritation

Skin Irritation: Causes moderate irritation

Inhalation LC₅₀: 2.7 mg/L

Skin sensitization: Not a contact sensitizer

Carcinogenic Potential: None listed in ACGIH, IARC, NTP, or OSHA

12. ECOLOGICAL INFORMATION

Ecotoxicity: **Data on Technical Material:**

96 hour LC₅₀ Rainbow Trout: 48 mg/L **Oral LD₅₀ Bobwhite Quail:** 83 mg/Kg **Bee Toxicity:** Highly toxic

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters.

13. DISPOSAL CONSIDERATIONS

Open dumping is prohibited. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use 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.

