

# SAFETY DATA SHEET



**Date Issued :** 7/13/2015  
**SDS No :** Vesper  
**Date Revised :** 1/11/2018  
**Revision No :** 1

## Vesper

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Vesper  
**CHEMICAL FAMILY:** Insecticide

#### DISTRIBUTOR

Innvictis Crop Care, LLC  
 1880 Fall River Drive  
 Suite 100  
 Loveland, CO 80538

**EPA REG. NO.:** 89168-24-89391

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

24-Hour Emergency Assistance Call: 1-800-222-1222  
 Chemical Emergency Call CHEMTREC: 1-800-424-9300

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

Acute Toxicity (Oral), Category 3  
 Acute Toxicity (Inhalation), Category 4  
 Skin Irritation, Category 2  
 Eye Irritation, Category 2A  
 Carcinogenicity, Category 2  
 Aspiration Hazard, Category 1

##### Environmental:

Acute Hazards to the Aquatic Environment, Category 3

##### Physical:

Flammable Liquids, Category 4

#### GHS LABEL



Skull and  
crossbones



Exclamation  
mark



Health  
hazard

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H227: Combustible liquid.  
 H304: May be fatal if swallowed and enters airways.  
 H301: Toxic if swallowed.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H332: Harmful if inhaled.  
 H351: Suspected of causing cancer.  
 H402: Harmful to aquatic life.

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**PRECAUTIONARY STATEMENTS****General:**

- P101: If medical advice is needed, have product container or label at hand.
- P102: Keep out of reach of children.
- P103: Read label before use.

**Prevention:**

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P261: Avoid breathing mist, vapors or spray.
- P264: Wash hands, face and other affected areas thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P281: Use personal protective equipment as required.

**Response:**

- P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P330: Rinse mouth.
- P331: Do NOT induce vomiting.
- P321: Specific treatment see Section 4, First Aid Measures, on this SDS.
- P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P312: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P308+P313: IF exposed or concerned: Get medical advice/attention.

**Storage:**

- P403+P235: Store in a well-ventilated place. Keep cool.
- P405: Store locked up.

**Disposal:**

- P501: Dispose of contents/container to Local, State and Federal Regulations.

**CARCINOGENICITY:****Naphthalene (<1-6.5%)**

Test results reported for the final product take into account any acute hazards related to the naphthalene in the formulation.

Carcinogen Status

NTP: Anticipated Carcinogen

IARC: Group 2B Possible Human Carcinogen

**SENSITIZATION:** Not a skin sensitizer.

**COMMENTS HEALTH:** Read all precautions of products being handled and follow the most restrictive language for all products to provide the safest work environment.

**HEALTH HAZARDS:** This product contains petroleum distillates. This product contains a chemical that is a cholinesterase inhibitor (chlorpyrifos).

**PHYSICAL HAZARDS:** Combustible liquid. Keep away from ignition sources and unauthorized people.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

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Chemical Name	Wt.%	CAS
Chlorpyrifos	45	2921-88-2
Naphthalene	<= 6.5	91-20-3
Other Ingredients	<= 55	Mixture

#### 4. FIRST AID MEASURES

**EYES:** Hold eyes 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 eyes. 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.

**INGESTION:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so 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.

**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 control center or doctor for further treatment advice.

**NOTES TO PHYSICIAN:** Chlorpyrifos is a cholinesterase inhibitor. Treat poisoning symptomatically. Baseline data is useful in detecting the level of exposure. Certain tests, such as plasma and red blood cell cholinesterase, may detect exposure level.

Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

**ANTIDOTES:** Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

**ADDITIONAL INFORMATION:** Have the product container or label with you when calling a poison control center or doctor, or going in for treatment. For emergency medical assistance call **NPCC 1-800-222-1222** or call **CHEMTREC 1-800-424-9300**.

#### 5. FIRE FIGHTING MEASURES

**GENERAL HAZARD:** Toxic fumes may be emitted in a fire situation.

**EXTINGUISHING MEDIA:** Foam, dry chemical, carbon dioxide, water spray or fog.

**HAZARDOUS COMBUSTION PRODUCTS:** Normal combustion forms carbon dioxide, water vapor and may produce oxides of carbon, nitrogen and phosphorous.

**EXPLOSION HAZARDS:** Combustible Liquid. Can form explosive mixtures at temperatures at or above the flashpoint. Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**FIRE FIGHTING PROCEDURES:** Evacuate area and fight fire upwind a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

**FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** 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.

**LARGE SPILL:** Dike around the spill area to prevent spreading. Pick up spilled material with suitable absorbent material and place in appropriate container for disposal. Scrub the contaminated area with a detergent or soap solution. Place it and unusable containers in a landfill appropriate for non hazardous chemical waste. Check local, state, and federal regulations for proper disposal.

#### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Do not contaminate any body of water.

**LAND SPILL:** Avoid runoff onto any adjacent land.

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**SPECIAL PROTECTIVE EQUIPMENT:** Always wear proper protective equipment when handling this product.

## 7. HANDLING AND STORAGE

**HANDLING:** Wash hands after handling, before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid contact with eyes and contact with skin. 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 freeze. Store in a cool place above 40°F. If crystals are observed, warm material to above 60°F by placing container in a warm location. Shake or roll container periodically to re-dissolve solids. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Store in a well ventilated area under lock and key.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Naphthalene	TWA	10	50	10	52
	STEL			15	79

**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.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Wear chemical goggles or shielded safety glasses (ANSI Z87.1 or approved equivalent) when handling and mixing product. Contact lenses should not be worn when working with chemicals.

**SKIN:** Wear chemical resistant gloves such as Viton or barrier laminate, Coveralls over long-sleeved shirt, long pants and chemical resistant footwear plus socks. Chemical resistant headgear for overhead exposure. When exposed to product concentrate, wear a chemical resistant apron. Always refer to the label of the pesticide(s) in the tank mix and follow the most restrictive requirements.

**RESPIRATORY:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Wear a NIOSH/MSHA approved dust mask or filter when vapors are expected to be generated above the permissible limit.

**PROTECTIVE CLOTHING:** Eye protection, long sleeved shirt and long pants, shoes plus socks and chemical resistant gloves. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**OTHER USE PRECAUTIONS:** Avoid contact with skin, eyes, and clothing. Avoid breathing vapors. Wash thoroughly after handling product. Eye wash fountains and drench showers should be located within 100 feet or a 10 second walk from the work area per ANSI Z358.1-1990

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**ODOR:** Solvent

**APPEARANCE:** Liquid

**COLOR:** Amber to brown

**pH:** 4.0 to 5.0

**PERCENT VOLATILE:** 40-50

**FLASH POINT AND METHOD:** > (141 °F)

**FLAMMABLE LIMITS:** Not Established

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**AUTOIGNITION TEMPERATURE:** Not Established**VAPOR PRESSURE:** Not Established**VAPOR DENSITY:** Not Established**BOILING POINT:** Not Established**FREEZING POINT:** <= (32°F)**Notes:** Crystals may form at storage temperatures below <40°F. Warm product to above 60°F by placing container in a warm location. Shake or roll container to re-dissolve solids.**MELTING POINT:** Not Established**POUR POINT:** Not Established**THERMAL DECOMPOSITION:** Not Established**SOLUBILITY IN WATER:** Emulsifies**EVAPORATION RATE:** Not Established**DENSITY:** 9.00 - 9.34 lbs/gal.**SPECIFIC GRAVITY:** 1.08 to 1.12 g/mL**VISCOSITY:** Not Established**MOLECULAR WEIGHT:** Not Established**10. STABILITY AND REACTIVITY****STABLE:** Yes**HAZARDOUS POLYMERIZATION:** No**POLYMERIZATION:** Will not occur.**CONDITIONS TO AVOID:** Excessive heat and open flames.**POSSIBILITY OF HAZARDOUS REACTIONS:** Avoid heating above 100°F. Chlorpyrifos undergoes exothermic decomposition at approximately 266°F, which can lead to higher temperatures and violent decomposition if generated heat is not removed.**INCOMPATIBLE MATERIALS:** Strong alkalis, amines and oxidizers.**11. TOXICOLOGICAL INFORMATION****ACUTE****DERMAL LD<sub>50</sub>:** > 5000 mg/kg**ORAL LD<sub>50</sub>:** 300 mg/kg**INHALATION LC<sub>50</sub>:** 2.7 mg/L**EYE EFFECTS:** Causes serious eye irritation.**SKIN EFFECTS:** Causes skin irritation.**CARCINOGENICITY**

Chemical Name	NTP Status	IARC Status
Naphthalene	2	2B

**SENSITIZATION:** Not a contact sensitizer**COMMENTS:** 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.**12. ECOLOGICAL INFORMATION****ENVIRONMENTAL DATA:** This pesticide is toxic to fish, aquatic invertebrates, small mammals, and birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate. This product is highly toxic to bee exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Do not reuse product containers. Triple rinse (or equivalent), then offer for recycling at an ACRC site (go to <http://www.acrecycle.org/> for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state, and federal regulations.

**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** UN 3018, RQ Organophosphorous pesticide, liquid, toxic, PG III, Class 6.1 (Chlorpyrifos)

**PRIMARY HAZARD CLASS/DIVISION:** 6.1 Toxic

**SECONDARY HAZARD CLASS/DIVISION:** 3

**UN/NA NUMBER:** 3018

**PACKING GROUP:** III

**NAERG:** 152

**PLACARDS:** Toxic 6.1

**LABEL:** Toxic 6.1

**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt.%	CAS
Naphthalene	<= 6.5	91-20-3

**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Wt.%	CERCLA RQ
Chlorpyrifos	45	1
Naphthalene	<= 6.5	100

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

Chemical Name	CAS
Naphthalene	91-20-3

**CALIFORNIA PROPOSITION 65**

Chemical Name	Wt.%	Listed
Naphthalene	<= 6.5	Cancer

**FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT):****Labeling 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:

**PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals****WARNING**

May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes,

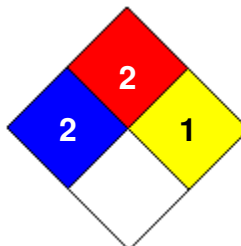
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skin, or clothing. Avoid breathing vapors. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves (barrier laminate or viton, selection category G).

**16. OTHER INFORMATION**

**REASON FOR ISSUE:** New Revision

**REVISION SUMMARY:** This SDS replaces the 7/14/2015 SDS. Revised: **Section 1: REASON FOR ISSUE.**

**NFPA CODES****GENERAL STATEMENTS: DISCLAIMER AND LIMITATION OF LIABILITY**

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