

# SAFETY DATA SHEET



**Date Issued :** 6/19/2015  
**SDS No :** Ravage  
**Date Revised :** 1/8/2018  
**Revision No :** 2

## Ravage

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Ravage  
**CHEMICAL FAMILY:** Insecticide

#### DISTRIBUTOR

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

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

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

**EPA REG. NO.:** 89168-16-89391

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

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

##### Environmental:

Acute Hazards to the Aquatic Environment, Category 2

##### Physical:

Flammable Liquids, Category 4

#### GHS LABEL



Exclamation  
mark



Skull and  
crossbones



Health  
hazard

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H227: Combustible liquid.  
 H301: Toxic if swallowed.  
 H311: Toxic in contact with skin.  
 H331: Toxic if inhaled.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H317: May cause an allergic skin reaction.

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H304: May be fatal if swallowed and enters airways.

H401: Toxic to aquatic life.

## 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:

P210: Keep away from heat, sparks, flames, and hot surfaces. – No smoking.

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.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P321: Specific treatment see Section 4, First Aid Measures, on this SDS.

P330: Rinse mouth.

P331: Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P361: Remove/Take off immediately all contaminated clothing.

P363: Wash contaminated clothing before reuse.

P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P311: Call a POISON CENTER or doctor/physician.

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.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P370+P378: In case of fire: Use Dry Chemical, CO<sub>2</sub>, water spray, or regular foam for extinction.

### Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

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.

## POTENTIAL HEALTH EFFECTS

**EYES:** Causes substantial, but temporary, eye irritation.

**CARCINOGENICITY:** Not Listed as a carcinogen

**SENSITIZATION:** This product is considered to be 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 is a Pyrethroid. This product contains petroleum distillates. Vomiting may cause aspiration. Refer to section 4 of this SDS for further treatment information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

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Chemical Name	Wt.%	CAS
Lambda-cyhalothrin	13.1	91465-08-6
Other Ingredients	86.9	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:** Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Have the product container label with you when calling a poison control center or doctor, or going for treatment.

This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be avoided.

**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:** Moderately 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:** Immediately 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. Wash the contaminated area with detergent and soap solution. Check local, state, and federal regulations for proper disposal.

**LARGE SPILL:** Immediately 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.

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

#### 7. HANDLING AND STORAGE

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**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:** Storage should be under lock and key in a ventilated room and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source and away from children and animals. Mix well before using. Keep tightly closed. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Lambda-cyhalothrin	<b>TWA</b>	None		None			.04

**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:** Aromatic solvent odor

**APPEARANCE:** Liquid

**COLOR:** Yellow transparent

**pH:** ~ 4.0 to 6.0

**PERCENT VOLATILE:** Not Established

**FLASH POINT AND METHOD:** > (190°F)

**FLAMMABLE LIMITS:** Not Established

**AUTOIGNITION TEMPERATURE:** Not Established

**VAPOR PRESSURE:** Not Established

**VAPOR DENSITY:** Not Established

**BOILING POINT:** Not Established

**FREEZING POINT:** Not Established

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**MELTING POINT:** Not Established**POUR POINT:** Not Established**THERMAL DECOMPOSITION:** Not Established**SOLUBILITY IN WATER:** Insoluble**EVAPORATION RATE:** Not Established**DENSITY:** 7.50 - 8.00 lbs/gal.**SPECIFIC GRAVITY:** 0.9 to 0.96 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:** None known.**INCOMPATIBLE MATERIALS:** None known.**11. TOXICOLOGICAL INFORMATION****ACUTE****DERMAL LD<sub>50</sub>:** > 600 mg/kg**ORAL LD<sub>50</sub>:** >50 & <500 mg/kg**INHALATION LC<sub>50</sub>:** > 0.5 mg/L**EYE EFFECTS:** Causes substantial, but temporary, eye irritation.**SKIN EFFECTS:** Causes skin irritation.**CARCINOGENICITY****Notes:** Not listed in OSHA, NTP, IARC or ACGIH**SENSITIZATION:** This product is considered to be a skin 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 and wildlife. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.**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:** Pyrethroid pesticide, liquid, toxic, 6.1, UN 3352, PG III, (Lambda-Cyhalothrin)**PRIMARY HAZARD CLASS/DIVISION:** 6.1 Toxic**UN/NA NUMBER:** 3352**PACKING GROUP:** III

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**NAERG:** 151**PLACARDS:** 6.1 Poison (Toxic)**LABEL:** 6.1 Poison (Toxic)**AIR (ICAO/IATA)****SHIPPING NAME:**

Environmentally hazardous substance, liquid, N.O.S. (Azoxystrobin)

**UN/NA NUMBER:** UN 3082**PRIMARY HAZARD CLASS/DIVISION:** 9**PACKING GROUP:** III**VESSEL (IMO/IMDG)****SHIPPING NAME:**

Environmentally hazardous substance, liquid, N.O.S. (Azoxystrobin), Marine Pollutant

**UN/NA NUMBER:** UN 3082**PRIMARY HAZARD CLASS/DIVISION:** 9**PACKING GROUP:** III**15. REGULATORY INFORMATION****UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** Immediate, Delayed, Fire**FIRE:** Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes**313 REPORTABLE INGREDIENTS:** Not Listed**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)****CERCLA RQ:** Not Listed**CALIFORNIA PROPOSITION 65:** Not Listed**CARCINOGEN:** Not Listed**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/AVISO**

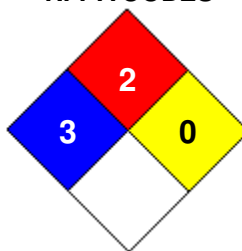
May be fatal if swallowed or inhaled. Causes substantial but temporary eye injury. Causes skin irritation. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Harmful if absorbed through skin. Wear appropriate protective clothing and eye wear as specified in the Personal Protective Equipment (PPE) section of this label. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Remove and wash contaminated clothing before reuse.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2-30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

**16. OTHER INFORMATION****REASON FOR ISSUE:** New Revision**REVISION SUMMARY:** This SDS replaces the 6/7/2017 SDS. Revised: **Section 1:** REASON FOR ISSUE. **Section 16:** GENERAL STATEMENTS.

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

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