

SAFETY DATA SHEET



Date Issued : 7/7/2015

SDS No : Reveal

Reveal

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Reveal
CHEMICAL FAMILY: Insecticide

DISTRIBUTOR

Innvictis Crop Care, LLC
 4850 Hahns Peak Drive, Suite 200
 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.: 89168-19-89391

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Oral), Category 4
 Acute Toxicity (Dermal), Category 5
 Acute Toxicity (Inhalation), Category 4
 Skin Irritation, Category 3
 Eye Irritation, Category 2B
 Skin Sensitization, Category 1B
 Carcinogenicity, Category 2

Environmental:

Acute Hazards to the Aquatic Environment, Category 1

Physical:

Flammable Liquids, Category 4

GHS LABEL



Environment

Exclamation
markHealth
hazard

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H227: Combustible liquid.
 H302: Harmful if swallowed.
 H313: May be harmful in contact with skin.
 H316: Causes mild skin irritation.
 H317: May cause an allergic skin reaction.
 H332: Harmful if inhaled.
 H351: Suspected of causing cancer.
 H400: Very toxic 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.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P273: Avoid release to the environment.
- P281: Use personal protective equipment as required.

Response:

- P308+P313: IF exposed or concerned: Get medical advice/attention.
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330: Rinse mouth.
- P304+P340: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- 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.
- P321: Specific treatment see Section 4, First Aid Measures, on this SDS.
- P363: Wash contaminated clothing before reuse.
- P370+P378: In case of fire: Use Dry Chemical, CO₂, water spray, or regular foam for extinction.
- P391: Collect spillage.

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 (<4%)**

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

California Proposition 65: Yes, Cancer

SENSITIZATION: This product may cause an allergic skin reaction.

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. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Refer to section 4 of this SDS for further First Aid information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Reveal

| Chemical Name | Wt.% | CAS |
|-------------------|-------|------------|
| Bifenthrin | 25 | 82657-04-3 |
| Naphthalene | <= 4 | 91-20-3 |
| Other Ingredients | <= 75 | 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: This product is 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. This product contains a petroleum distillate; vomiting may cause aspiration pneumonia. This product contains light aromatic hydrocarbons that can produce a severe pneumonitis or fatal pulmonary edema if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Reversible skin sensitizations (paresthesia) may occur.

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: 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.

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: No specific explosion hazards are identified or expected. Always fight fire with the implication that other volatile substances may be present.

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. Do not store below 40oF. If crystals are observed, warm material to above 60oF 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

| OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200) | | | | | |
|---|------|-----------------|-------------------|-----------|-------------------|
| | | EXPOSURE LIMITS | | | |
| | | OSHA PEL | | ACGIH TLV | |
| Chemical Name | | ppm | mg/m ³ | ppm | mg/m ³ |
| 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: Mild Aromatic

APPEARANCE: Liquid

COLOR: Amber

pH: 5.3

PERCENT VOLATILE: Not Established

FLASH POINT AND METHOD: > (160°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)**MELTING POINT:** Not Established**POUR POINT:** Not Established**THERMAL DECOMPOSITION:** Not Established**SOLUBILITY IN WATER:** Emulsifies**EVAPORATION RATE:** Not Established**DENSITY:** 7.74 - 8.24 lbs/gal.**SPECIFIC GRAVITY:** 0.93 to 0.99 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.**INCOMPATIBLE MATERIALS:** None known.**11. TOXICOLOGICAL INFORMATION****ACUTE****DERMAL LD₅₀:** > 2000 mg/kg**ORAL LD₅₀:** > 200 mg/kg**INHALATION LC₅₀:** > 1.80 mg/L**EYE EFFECTS:** Causes eye irritation.**SKIN EFFECTS:** Causes mild skin irritation.**CARCINOGENICITY**

| Chemical Name | NTP Status | IARC Status |
|---------------|------------|-------------|
| Naphthalene | 2 | 2B |

Notes:

Naphthalene (<4%)

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

SENSITIZATION: This product may cause an allergic skin reaction.**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 extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

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This product is highly toxic to bees 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 while bees are actively visiting the treatment area.

The use of this product is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

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 (Bifenthrin), Class 6.1, UN 3352, PG III, ERG 151

PRIMARY HAZARD CLASS/DIVISION: 6.1 Toxic

UN/NA NUMBER: UN 3352

PACKING GROUP: III

NAERG: 151

PLACARDS: 6.1 Poison (Toxic)

LABEL: 6.1 Poison (Toxic)

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: Bifenthrin (CAS No. 82657-04-3); Naphthalene (CAS No. 91-20-3); 1,2,4 Trimethylbenzene <1% (CAS No. 95-63-6)

EPCRA SECTION 313 SUPPLIER NOTIFICATION

| Chemical Name | Wt.% | CAS |
|---------------|------|------------|
| Bifenthrin | 25 | 82657-04-3 |
| Naphthalene | <= 4 | 91-20-3 |

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

| Chemical Name | Wt.% | CERCLA RQ |
|---------------|------|-----------|
| Naphthalene | <= 4 | 100 |

CERCLA RQ: Naphthalene - CAS 91-20-3, 100lbs

<=119 Gallons - Not Regulated

TSCA (TOXIC SUBSTANCE CONTROL ACT)

| Chemical Name | CAS |
|---------------|---------|
| Naphthalene | 91-20-3 |

CALIFORNIA PROPOSITION 65: This product contains chemical(s) known to the state of California to cause cancer, birth defects or other reproductive harm.

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| Chemical Name | Wt.% | Listed |
|---------------|------|--------|
| Naphthalene | <= 4 | Cancer |

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

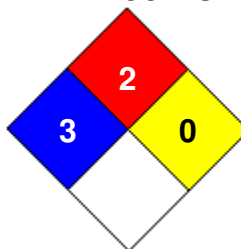
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels 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. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

16. OTHER INFORMATION

REASON FOR ISSUE: New SDS Format

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

This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and INNVICTIS CROP CARE LLC, disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.