

MATERIAL SAFETY DATA SHEET

AVENGER S3

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

ALTITUDE CROP INNOVATIONS LLC
4850 Hahns Peak Drive, Suite 200
Loveland, CO 80538

EPA REG. NO.: 89168-21-91395

PRODUCT NAME: AVENGER S3
CHEMICAL NAME: Bifenthrin: (2 methyl[1,1 -biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate* - *Cis isomers 97% minimum, trans isomers 3% maximum. Imidacloprid: 1 -[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine

CHEMICAL FAMILY: Insecticide

Hotline Numbers: For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – DANGER: Corrosive. Causes irreversible eye damage. Harmful if **absorbed** through skin or swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

3. COMPOSITION, INFORMATION ON INGREDIENTS

| <u>Chemical Ingredients:</u> | <u>Percentage by Weight:</u> | <u>CAS No.</u> | <u>TLV (Units)</u> |
|--|------------------------------|----------------|--------------------|
| Bifenthrin | 5.7 | 82657-04-3 | Not listed |
| Imidacloprid | 5.7 | 138261-41-3 | Not listed |
| Inert Ingredients, including Aromatic Hydrocarbons, contains | 88.6 | 64742-94-5 | 100ppm |

4. FIRST AID MEASURES

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

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 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 Inhaled: 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 treatment advice.

Note to Physician: This product is a Pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is systematic and supportive. Digestible fats, oils or alcohol may increase absorption and so should be avoided. Contains petroleum distillate — vomiting may cause aspiration pneumonia.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT have the product container or label with you when calling a poison control center or doctor.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >170°F

FLAMMABLE LIMITS (LFL & UFL): Not established

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate area and fight fire upwind from 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 run off. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

UNUSUAL FIRE AND 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 EQUIPMENT: Self-contained breathing apparatus with full facepiece. Full fire fighting turn-out gear (Bunker gear).

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and toxic chlorine compounds. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

To confine spill: Dike surrounding area or absorb with sand, cat litter, or commercial clay. Place damaged package in a holding container. Identify contents. 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.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. 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 of the nearest EPA Regional Office for guidance.

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: Keep out of reach of children and animals. Store in original containers only, in a cool, dry place and avoid excess heat. Do not freeze. Do not store below 40° F. Carefully open containers. If crystals are observed, warm material to above 60° F by placing container in warm location. Shake or roll container periodically to redissolve solids. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

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: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit.

EYE PROTECTION: Wear 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): Follow the instructions for Category E on the EPA Chemical resistance category section chart. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear liquid, mild aromatic

SPECIFIC GRAVITY (Water=1): 0.98 – 1.02 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): 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.

SOLUBILITY: Emulsifies

pH: 6.0-6.5

BULK DENSITY: 8.17 – 8.50 lbs/gal.

BOILING POINT: Not established

EVAPORATION RATE: Not established

10. STABILITY AND REACTIVITY

STABILITY: Stable

IMCOMPATIBILITY: None Known

HAZARDOUS DECOMPOSITION PRODUCTS: May emit toxic fumes as it burns.

CONDITIONS TO AVOID: Excessive heat and fire.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀: >1000 mg/kg

Eye Irritation: Causes irreversible eye damage.

Inhalation LC₅₀: >2.0 mg/L

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

Acute Dermal LD₅₀: >2,000 mg/kg

Skin Irritation: May causes irritation

Skin sensitization: Not a Sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: 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 from 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.

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.

13. DISPOSAL CONSIDERATIONS

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 Shipping Description: <119 Gallons, Not Regulated by DOT;
 ≥119 Gallons, NA 1993, COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES-NAPHTHALENE), PG III, RQ NAPHTHALENE
DOT HAZARD CLASS: Class 3 - COMBUSTIBLE
UN NUMBER: NA 1993 **DOT PACKING GROUP:** PG III
DOT PRIMARY/SECONDARY LABEL: COMBUSTIBLE / None
DOT PRIMARY/SECONDARY PLACARD: COMBUSTIBLE / None

15. REGULATORY INFORMATION

NFPA RATINGS: Least = 0 Slight = 1 Moderate = 2 High = 3 Severe = 4
Ratings for this product: Health – 3 Flammability – 2 Instability – 0 Special Hazards – None Specified

SARA Title III Hazard Category: Immediate Y Fire Y Sudden Release of Pressure N
 Delayed Y Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Napthalene (CAS No. 91-20-3), 100 lbs.

SARA, Title III, Section 313: Bifenthrin (CAS No. 82657-04-3); Napthalene <5% (CAS No. 91-20-3); 1,2,4 Trimethylbenzene <1% (CAS No. 95-63-6)

CA Proposition 65: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER

Date of Issue: 01/12/15 Supersedes: 11/27/13

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