



SAFETY DATA SHEET

SDS ID: 74530-69

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	HELMSTAR PLUS SC
Product use / type:	Fungicide
Restrictions on use:	See product label
EPA Registration No.:	74530-69
Chemical name / active ingredients:	Tebuconazole: a-[2-(4-chlorophenyl)ethyl]-a-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol Azoxystrobin: Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate
Manufacturer / Registrant:	Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602
Manufacturer's Telephone:	813-621-8846
Email:	info@helmagro.com
Chemical Emergencies:	1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification

Acute Toxicity – Ingestion	Category 3
Reproductive Toxicity	Category 2

EMERGENCY OVERVIEW

Signal Word: DANGER

Pictograms:



Appearance: Bright white

Physical state: Liquid

Odor: Plastic-like

Hazard Statements:

- Toxic if swallowed
- Suspected of damaging the unborn child

Precautionary Statements:

- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Wear protective gloves / clothing / eye and face protection.

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- Wash hands and face thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- If exposed or concerned: Get medical advice / attention.
- IF SWALLOWED: Immediately call a poison control center. Rinse mouth.
- Store locked up. Dispose of contents / container in accordance with local regulations.

Other Information / Potential Hazards:

May cause eye irritation.

Very toxic to aquatic life with long lasting effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight % **
Tebuconazole: a-[2-(4-chlorophenyl)ethyl]-a-(1,1-dimethylethyl)-1H-1,2,4-triazole-1-ethanol	107534-96-3	22.0
Azoxystrobin: Methyl(E)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	131860-33-8	11.0
Other ingredients	-	67.0

** Values are not product specifications.

4. FIRST AID MEASURES

If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If on skin or clothing:	<ul style="list-style-type: none">• Remove contaminated clothing and shoes.• Rinse skin immediately with plenty of water for 15 or 20 minutes.• Call a poison control center or doctor for treatment advice.
If in Eyes:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or get medical help, then give artificial respiration, preferably with the aid of a pocket mask equipped with a one-way valve.• Call a poison control center or doctor for further treatment advice.
First Aid Note:	<ul style="list-style-type: none">• Have this safety data sheet, the product container or label with you when calling a poison control center or doctor, or going for treatment.
Note to physician:	<ul style="list-style-type: none">• No specific antidote is available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Not flammable.
Extinguishing media:	Water fog, dry chemical, alcohol resistant foam or CO ₂
Unsuitable extinguishing media:	High pressure water streams.
Firefighting measures:	Use extinguishing media appropriate for surrounding fire. Prevent contaminated firefighting waters and spillage from entering sewers, drains and waterways. Foam or dry chemical are preferred to minimize environmental contamination.
Protective equipment and precautions for firefighters:	Wear full protective firefighting gear including self-contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent).
Hazardous decomposition products:	Thermal decomposition may release oxides of carbon and nitrogen and irritating and toxic vapors. Hydrogen cyanide and hydrogen chloride can be released.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Isolate and post spill area. Wear protective gloves / clothing and eye protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation. See section 8 for personal protective equipment.
Environmental precautions:	Prevent further spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Avoid release into the environment.
Methods for containment:	Isolate the spill area. Contain small spill with inert material (e.g. sand, silica gel, binder). Dike large spill with absorbent or impervious material such as clay.
Methods for cleanup:	Pick up absorbed material by shovel and transfer to properly labeled containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid contamination of work clothing.
Precautions for safe storage:	Store and handle in accordance with good industrial hygiene practices. Keep container tightly closed. Store in a cool, dry and well-ventilated place away from children and animals.

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Incompatible storage situations: Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, water, and feed.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

The following recommendations for exposure controls and personal protection are intended for the manufacture, formulation and packaging of this material. Commercial applicators and on-farm applications should refer to the product label for personal protection equipment.

Exposure Guidelines:	This product does not contain hazardous substances with occupational exposure limits established by the region specific regulatory bodies.
Engineering controls:	Emergency eye wash / drench near work area. Emergency shower or suitable water supply near the work area. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection:	Wear chemical-tight goggles or safety glasses and full face-shield.
Body / skin protection:	Long sleeved shirt, long pants, shoes plus socks. Wash contaminated work clothing before reuse.
Hand protection:	Wear chemical resistant gloves / hand protection. Wash outside of gloves before removing.
Respiratory protection:	If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Use respiratory equipment in accordance with local regulations.
General hygiene considerations	Handle in accordance with good industrial hygiene practice. Remove and wash contaminated clothing before reuse. Launder separate from household laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Bright white
Odor:	Plastic-like
pH:	6.6 – 6.7 (1% w/v aqueous suspension at 20° C)
Melting point:	Not applicable
Boiling point:	No information available
Flash point:	Not flammable

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Relative density:	1.09 g/ml at 20° C
Water solubility:	Miscible
Viscosity:	No information available
n-Octanol / water partition coefficient:	Tebuconazole: log Pow 3.44 at 20° C Azoxystrobin: log Pow 2.0 at 25° C

10. STABILITY AND REACTIVITY

Reactivity / chemical stability:	Stable under normal temperature and conditions.
Conditions / Materials to avoid:	Extreme heat, sparks and fire. Incompatible with strong oxidizing agents.
Hazardous decomposition products:	Under fire conditions may evolve oxides of carbon and nitrogen.
Hazardous reactions:	Not expected under normal conditions of handling and use.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Inhalation:	No information available
Ingestion:	Toxic if swallowed.
Eye contact:	May cause eye irritation.
Skin contact:	No information available
Symptoms:	Contact with eyes may cause temporary burning.

Information on product toxicological effects:

Acute oral LD50:	Rat LD ₅₀ : 300 mg/kg
Acute dermal LD50:	Rat LD ₅₀ : >2000 mg/kg
Acute inhalation LC50:	Rat 4-hr LC ₅₀ : >5.12 mg/L
Eye irritation:	Moderately irritating (rabbit).
Skin irritation:	Non-irritating (rabbit).
Sensitization:	Not a sensitizer.
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.
Reproductive effects (Tebuconazole):	Suspected of damaging fertility or the unborn child.
Mutagenic effects:	Not mutagenic

12. ECOLOGICAL INFORMATION

Environmental Hazards:	Very toxic to aquatic organisms with long lasting effects. Keep out of any body of water.
Ecotoxicity:	

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Tebuconazole (CAS# 107534-96-3) 96-hr LC₅₀: 4.4 mg/L *Onchorhynchus mykiss*
48-hr EC₅₀: 2.0 mg/L *Daphnia magna*
72-hr EC₅₀: 3.2 mg/L *Pseudokirchneriella subcapitata*

Azoxystrobin (CAS# 131860-33-8) 96-hour LC₅₀: 0.47 ppm *Onchorhynchus mykiss*
48-hour EC₅₀: 259 ug/L *Daphnia magna*

Persistence and degradability: No information available

Bioaccumulation: No information available

13. DISPOSAL CONSIDERATIONS

Product disposal: Wastes resulting from the use of this product that cannot be used must be disposed in accordance with applicable Federal, State or local regulations at an approved waste disposal facility.

Container disposal: Emptied container retains product residue. Observe all labeled safeguards until container is destroyed or offered for recycling. Clean container promptly after emptying. Refer to container label for additional information.

14. TRANSPORT INFORMATION

U.S. DOT: Not subject to DOT regulation in packages less than 119 gallons (450 liters).

UN3082, Environmentally hazardous substance, liquid, n.o.s. (Tebuconazole, Azoxystrobin), 9, III Marine Pollutant

15. REGULATORY INFORMATION

U.S. Federal Regulations:

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:

Signal word: Warning

EPA Registration No.: 74530-69

Hazards to Humans and Domestic Animals

May be fatal if swallowed. Harmful if absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

Environmental Hazards

This pesticide is toxic to mammals, fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

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TSCA: Not subject to TSCA, product is regulated under FIFRA
SARA 311/312: Acute, Chronic Health Hazard
SARA 313: None listed.
CERCLA: None listed.

U.S. State Regulations:

State Right-to-Know Regulations: This product is not subject to state Right-to-Know regulations.

California Proposition 65: This product does not contain substances known to the state of California to cause cancer and/or reproductive/developmental effects.

16. OTHER INFORMATION

NFPA Ratings:	Health	Fire	Instability
	2	0	0

Revision No.: 1.0
Revision Date: 28-Sep-2016
Revision Note: Initial release

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; CST - Centistokes; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; FIFRA - Federal Insecticide, Fungicide and Rodenticide Act; GHS - Global Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MP - Marine Pollutant; NFPA - National Fire Protection Association; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other information / Disclaimer

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States or Canadian patent. No claim of any kind shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

End of Safety Data Sheet