

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**COMPANY ADDRESS:** ALBAUGH, LLC  
Ankeny, IA 50021

**EMERGENCY TELEPHONE NUMBERS:**  
(800) 424-9300 (CHEMTREC, transportation and spills)

**PRODUCT NAME :** PROPI-STAR EC  
**CHEMICAL NAME :** Propiconazole  
**PRODUCT USE :** Fungicide  
**PRODUCT CODE :** EPA Reg. No 42750-211

**SECTION 2 - HAZARDS IDENTIFICATION SUMMARY**

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Transparent dark yellow liquid

**HEALTH HAZARDS:** WARNING. Causes substantial but temporary eye injury. Harmful if swallowed. Possible skin sensitizer.

**PHYSICAL HAZARDS:** Combustible liquid. May release toxic fumes if burned.

**ENVIRONMENTAL HAZARDS:** Toxic to aquatic life.

**SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER
Propiconazole	41.8	60207-90-1
Aromatic solvent (contains)*	45.0 – 55.0	64742-94-5
*Naphthalene	2 – 5	91-20-3
Surfactants (proprietary)	4.0 – 12.0	n/a

**SECTION 4 - FIRST AID MEASURES**

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

**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 SWALLOWED:** 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.

**IF INHALED:** Move person to fresh air, if person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**NOTE TO PHYSICIAN:** Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

**SECTION 5 - FIRE FIGHTING MEASURES**

National Fire Protection Rating (NFPA)

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**FLASHPOINT:** 69.3°C (157 F)

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**FIRE FIGHTING INSTRUCTIONS:** 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. Dike and collect water used to fight fire to prevent environmental damage due to run off.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece.

Minimize use of water to prevent environmental contamination. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**IN CASE OF SPILLS OR LEAKS:** Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**SMALL SPILL:** Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate container for disposal.

**LARGE SPILL:** Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Minimize use of water to prevent environmental contamination

**SECTION 7 - HANDLING AND STORAGE**

KEEP OUT OF REACH OF CHILDREN!

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

**HANDLING:** Use only in a well-ventilated area.

**STORAGE:** Store in original container with lid tightly closed. Keep away from food, feed and drinking water. Store in a well ventilated dry place away from heat and other sources of ignition.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION****EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Propiconazole	Not listed	Not listed
Naphthalene	10	10

**ENGINEERING CONTROLS:** Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

EYE PROTECTION - Safety glasses or goggles.

CLOTHING - Long-sleeved shirt and long pants, Shoes plus socks.

GLOVES – Chemical-resistant gloves, such as barrier laminate, or viton.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Wash hands 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 outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Transparent dark yellow liquid
<b>Odor:</b>	Estery odor
<b>pH:</b>	4.85 – 5.85
<b>Melting Point:</b>	Not applicable
<b>Boiling Point:</b>	No data
<b>Flash Point:</b>	69.3°C
<b>Evaporation Rate:</b>	No data
<b>Flammability:</b>	No data
<b>Flammability Limits:</b>	No data
<b>Vapor Pressure:</b>	5.6 x 10 <sup>-2</sup> mPa (25°C) (Propiconazole)
<b>Vapor Density:</b>	Not applicable
<b>Density:</b>	1.02 – 1.06 g/ml (8.51 – 8.85 lb/gl)*
<b>Solubility:</b>	Emulsifies
<b>Partition Coefficient:</b>	3.72 (pH 6.6, 25°C) (Propiconazole)
<b>Auto-Ignition Temperature:</b>	No data
<b>Decomposition Temperature:</b>	No data
<b>Viscosity:</b>	10.77 cSt (20°C); 5.44 cSt (40°C)

\*Listed density is an approximate value and does not necessarily represent that of a specific batch.

**SECTION 10 - STABILITY AND REACTIVITY**

**PRODUCT REACTIVITY:** None known

**CHEMICAL STABILITY:** Stable, however may decompose if heated.

**HAZARDOUS REACTION/POLYMERIZATION:** Product will not undergo polymerization.

**CONDITIONS TO AVOID:** Avoid temperatures above (125°F, 48°C)

**INCOMPATIBLE MATERIALS:** Acidic and oxidizing materials

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride, Oxides of nitrogen

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Acute toxicity values based on similar but not identical formulation.

**ACUTE TOXICITY:**

Oral LD <sub>50</sub> (rat)	> 1,000 mg/Kg
Dermal LD <sub>50</sub> (rat)	> 2,000 mg/Kg
Inhalation LC <sub>50</sub> (rat)	> 2.02 mg/L
Eye Irritation (rabbit)	Moderate irritant
Skin Irritation (rabbit)	Moderate irritant
Sensitization (guinea pig)	Potential sensitizer

**CARCINOGEN STATUS:**

OSHA	- Not listed
NTP	- Not listed
IARC	- Not listed

**TERATOGENICITY:** Effects only noted at maternally toxic doses.

**MUTAGENICITY:** Weight of evidence indicates that propiconazole is non-mutagenic

**SECTION 12 - ECOLOGICAL INFORMATION**

**ENVIRONMENTAL SUMMARY:** This pesticide is toxic to fish. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water.

**FATE:** Propiconazole is moderately persistent with a soil half-life of 30-365 days depending on soil type and weather conditions. Propiconazole binds to soil and is immobile in most soil types.

**FISH TOXICITY: (technical)**

96 hour LC <sub>50</sub> , Rainbow trout –	0.8 ppm
96 hour LC <sub>50</sub> , Bluegill –	1.3 ppm

**AVIAN TOXICITY: (technical)**

Dietary LC <sub>50</sub> , Bobwhite quail –	> 5,000 ppm
Dietary LD <sub>50</sub> , Mallard duck -	> 5,000 ppm

**BEE TOXICITY: (technical)** > 25 ug/bee

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Do not contaminate water, food or feed by storage or disposal.

**WASTE:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER:** Non-refillable container: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple Rinsing Instructions: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsates into application equipment or rinsates collection system. Repeat this rinsing procedure two more times.

Refer to the product label for additional and complete Container Handling instructions

**SECTION 14 - TRANSPORT INFORMATION****SHIPPING DESCRIPTION:**

(Ground transport)

Containers ≤ 119 gallons -

Not regulated

Containers > 119 gallons -

NA1993, Combustible liquid, N.O.S. (contains petroleum distillate), PG III

**DOT HAZARD CLASS:**

Combustible liquid

**IDENTIFICATION NUMBER:**

NA1993

**DOT PACKING GROUP:**

PG III

**SECTION 15 - REGULATORY INFORMATION**

**CERCLA REPORTABLE QUANTITY:**

226 gallons product (100 lbs naphthalene)

**SARA TITLE III STATUS:**

311/312 Hazard Categories –  
313 Toxic Chemicals –

Immediate, Delayed  
Propiconazole

**CALIFORNIA PROP 65:**

Naphthalene is listed.

**TSCA:**

This product is exempted from TSCA because it is solely for FIFRA regulated use.

**SECTION 16 - OTHER INFORMATION**

HMIS HAZARD RATINGS	HEALTH	2
	FLAMMABILITY	2
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

**REVISED DATE:** October, 2014

**REFERENCE:** Revised for GHS compliance