



## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

Produced for: Gowan Company  
P.O. Box 5569  
Yuma, Arizona 85366-5569  
(928) 783-8844

**For 24-Hour Emergency Assistance (Spill, Leak, Fire, or Exposure), Call CHEMTREC<sup>U</sup>:**

**Inside the U.S.:** (800) 424-9300  
**Outside the U.S.:** (703) 527-3887  
(888) 478-0798

**For MEDICAL Emergency:**

**Product:** AFFIANCE<sup>®</sup>

**EPA Signal Word:** Caution

**EPA Registration No.:** 80289-19-10163

**Active Ingredient:** Tetraconazole

**CAS No.:** 112281-77-3

**Chemical Name:** 1-[2-(2,4-dichlorophenyl)-3-(1,1,2,2-tetrafluoroethoxy)propyl]-1,2,4-triazole

**Chemical Class:** Azole

**Active Ingredient:** Azoxystrobin

**CAS No.:** 131860-33-8

**Chemical Name:** Methyl (E)-2-[2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl]-3-methoxyacrylate

**Chemical Class:** A beta-methoxyacrylate fungicide

### 2. Hazards Identification

#### Physical Properties

**Appearance:** Brownish liquid

**Odor:** Characteristic

#### Medical Conditions Likely to be Aggravated by Exposure

Harmful if absorbed through skin. Harmful if swallowed. Avoid contact with skin, eyes or clothing.

#### Primary Routes of Exposure

Skin contact, eye contact, inhalation.

#### Hazardous Decomposition Products

Carbon monoxide (CO), sulphur oxides (SO<sub>x</sub>), hydrogen chloride (HCl), nitrogen oxides (NO<sub>x</sub>), ammonia (NH<sub>3</sub>)

#### Unusual Fire, Explosion, and Reactivity Hazards

None

### 3. Composition/Information On Ingredients

INGREDIENT NAME	CAS No.	OSHA – PEL	ACGIH – TLV	NTP/IARC/OSHA CARCINOGEN
Tetraconazole (7.48%)	112281-77-3	None	None	No
Azoxystrobin (9.35%)	131860-33-8	None	None	No

Only the identities of the active ingredient(s) and any *hazardous* inert ingredients are listed. Specific information on all of this product's ingredients can be obtained by the treating medical professional or spill emergency responder for the management of exposures, spills, or safety assessments.

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## 4. First Aid Measures

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<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. <b>FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE: 1-888-478-0798.</b>	

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## 5. Fire Fighting Measures

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### Flash Point

> 100 °C at 759 mmHg Pensky-martens c.c. (referred to azoxystrobin).  
63 °C (tazza chiusa) (ISO 3680) (referred to tetraconazole)

### Appropriate Extinguishing Media

In case of fire, use water, dry chemical, carbon dioxide (CO<sub>2</sub>), or foam.

### Special Fire Fighting Procedures

Firefighters and others that may be exposed to vapors, mists, dusts, or products of combustion should wear full protective clothing and self-contained breathing apparatus. Equipment should be thoroughly cleaned after use.

### Unusual Fire or Explosion Hazards

None

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## 6. Accidental Release Measures

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### In Case of Spills or Leaks

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment described in Section 8: Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Retain contaminated washing water and dispose it. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Suitable material for taking up: absorbing material, organic, sand. Refer to Section 13 for disposal information and Section 15 for reportable quantity information.

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## 7. Handling and Storage

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### Handling

Avoid contact with eyes, skin, or clothing. Wash hands thoroughly after handling or contact. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. 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 contaminate water when disposing of equipment washwaters.

### Storage

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Store in original container in a dry, temperature-controlled, secure, place.

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## 8. Exposure Controls/Personal Protection

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### Personal Protective Equipment:

**Eye Protection:** If there is significant potential for contact, wear goggles.

**Skin Protection:** Long-sleeved shirt and long pants. Chemical-resistant gloves, such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber. Shoes plus socks.

**Respiratory Protection:** No special requirement when used as recommended. If airborne exposure is excessive, wear respirator. Respiratory protection programs must comply with all local, regional, and national regulations.

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## 9. Physical and Chemical Properties

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**Appearance:** Brownish liquid

**Odor:** Characteristic

**pH:** 6.12 @ 25°C 10 g/l

**Density:** 1.07 g/cm<sup>3</sup>; (tap density)

**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.

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## 10. Stability and Reactivity

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**Stability:** Stable under normal conditions of handling and storage.

**Hazardous decomposition products:** At high temperatures, may contain toxic substances such as CO<sub>x</sub>, NO<sub>x</sub>, SO<sub>x</sub>, HCl, HF and HCN

**Conditions to avoid:** Store in original container in a dry, temperature-controlled, secure, place.

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## 11. Toxicological Information

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### Acute Toxicity/Irritation Studies: (Based on the mixture)

**Acute Oral Toxicity LD50:** > 300 – 5000 mg/kg

**Acute Dermal Toxicity LD50:** > 4000 mg/kg

**Acute Inhalation Toxicity LC50 (4h):** > 2.26 mg/L

**Eye Irritation:** Non-irritating

**Skin Irritation:** Non-irritating

**Dermal Sensitization:** Not a skin sensitizer

### Other Toxicological Information:

#### Tetraconazole:

Chronic Toxicity/Carcinogenic effect: Not likely to be carcinogenic to humans at levels that do not cause increased cell proliferation in the liver,

Reproductive Toxicity: No evidence of reproductive toxicity.

Teratogenic Effect: No teratogenic effect.

Mutagenic Effects: Not genotoxic.

#### Azoxystrobin :

Chronic Toxicity/Carcinogenic effect: No carcinogenic effect.

Reproductive Toxicity: Azoxystrobin showed no evidence of reproductive toxicity.

Teratogenic Effect: No teratogenic effect.

Mutagenic Effects: No genotoxicity in vivo.

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## 12. Ecological Information

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**Environmental Hazards:** This product is toxic to 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. Drift or runoff from treated areas may be hazardous to aquatic organisms adjacent to treatment areas. Exercise caution when making applications of Affiance, and do not apply when atmospheric conditions favor drift or runoff. Do not contaminate water when disposing of equipment wash waters or rinsate.

**Ecotoxicological Information:** (Based on the mixture)

Fish (danio rerio) LC<sub>50</sub> (96h): 6.7 mg/L

Daphnia (Daphnia similis) LC<sub>50</sub> (48h): 0.57 mg/L

Algae (Pseudokirchneriella subcapitata) EC<sub>50</sub> (72h): 5.32 mg/L

**Environmental Fate:**

**Tetraconazole:**

Stable to hydrolysis and not expected to be degradable by photolysis in water.

Not readily biodegradable.

Bioaccumulative potential : BCF = 35.7 (whole fish).

Soil K<sub>oc</sub> between 531 and 1922.

**Azoxystrobin:**

Expected to be degradable. Stable in water (degradation half-life: 214 days).

Not persistent in soil (degradation half-life: 80 days).

No bioaccumulative potential.

Low to very high mobility in soil.

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## 13. Disposal Considerations

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**Product disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**Container disposal:** Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of resulting smoke.

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## 14. Transport Information

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**DOT Classification**

**Non Bulk:** Not Regulated

**Bulk :** UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., (tetraconazole, azoxystrobin), 9, PG III

**International Maritime Organization**

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., (tetraconazole, azoxystrobin), 9, PG III, Marine Pollutant

**International Civil Aviation Organization**

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S., (tetraconazole, azoxystrobin), 9, PG III

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## 15. Regulatory Information

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### SARA Title III Classification

Section 302/304: Not applicable  
Section 311/312: Acute health hazard (immediate)  
Section 313 chemical(s): Not applicable

### Proposition 65

Not Applicable

### CERCLA Reportable Quantity (RQ)

None

### RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

### TSCA Status

Exempt from TSCA

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## 16. Other Information

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### NFPA Hazard Ratings

**Health:** 1  
**Flammability:** 0  
**Reactivity:** 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

**Notice:** The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

### Prepared By:

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