

# Hazard Communication



Western Region Pesticide Meeting  
May 17, 2016



# Safety Data Sheets

*(FRN 11/2/15 preamble p. 67513+)*

- OSHA requires that SDSs be in specific format
  - Original deadline June 2015; add transition period through June 1, 2016
- Obtain online or through distributor or manufacturer
  - NPIC link to registrants and SDS database:  
<http://npic.orst.edu/ingred/proddata.html>
- Workers wanted more information on health effects – hazard and toxicological information <sup>2</sup>



## **OSHA SDS Content Required [29 CFR 1900.1200(g)(2)]**

Section 1: Identification

Section 2: Hazard(s) identification

Section 3: Composition/information on ingredients

Section 4: First-aid measures

Section 5: Fire-fighting measures

Section 6: Accidental release measures

Section 7: Handling and storage

Section 8: Exposure controls/personal protection

Section 9: Physical and chemical properties

Section 10: Stability and reactivity

Section 11: Toxicological information

Section 12: Ecological information

Section 13: Disposal considerations

Section 14: Transport information

Section 15: Regulatory information

Section 16: Other information, including date prepared/revised



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

For MEDICAL Emergency:

Product: Affiance®  
EPA Signal Word: Caution  
EPA Registration No.: 10163-332



Active Ingredient: Tetraconazole  
Chemical Name: 1-[2-(2,4-dichlorophenyl)-3-(1,1,2,2-tetrafluoroethoxy)propyl]-1,2,4-triazole  
Chemical Class: Azole

Active Ingredient: Azoxystrobin  
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

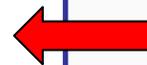
None

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.

Example of SDS for formulated herbicide – agricultural product





#### 4. First Aid Measures

<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>	

#### 5. Fire Fighting Measures

##### Flash Point

> 100 °C at 759 mmHg Pinsky-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

#### 6. Accidental Release Measures

##### 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.

#### 7. Handling and Storage

##### 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.

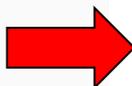
**Azoxystrobin :**

**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.





# Why expand the information available?

- Ensure that workers and handlers have workplace protections similar to those provided by OSHA for most other industries involving work around chemical hazards.
- Occupational Safety & Health Administration:
  - Written list of all hazardous chemicals known to be available in workplace
  - Maintain MSDS (SDS) for each hazardous chemical in workplace and ensure they are readily accessible to employees



## Where does the info need to be displayed?

Pesticide application and hazard information:



- At a place on the ag establishment where workers & handlers are likely to pass by or congregate and where it can be readily seen and read = “central” location
- Workers & handlers must be allowed access to the location at all time during normal work hours.