

## MATERIAL SAFETY DATA SHEET

### Section 1. Chemical Product and Company Identification

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**Product Name:** Azoxcy Top - CAMPO-AZOFEN 325 SC  
(AZOXYSTROBINA 200 g/L+ DIFENOCONAZOL 125 g/L SC)

**Chemical Name of Active Ingredient (CA):**

Azoxystrobin: Methyl(*E*)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate

Difenoconazole: *cis,trans*-3-chloro-4-[4-methyl-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-2-yl]phenyl 4-chlorophenyl ether

**Chemical Formula of Active Ingredient:**

Azoxystrobin: C<sub>22</sub>H<sub>17</sub>N<sub>3</sub>O<sub>5</sub>

Difenoconazole: C<sub>19</sub>H<sub>17</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>3</sub>

**CAS/EPA/EU Registry Number of Active Ingredient:**

Azoxystrobin: 131860-33-8 (CAS)

Difenoconazole: 119446-68-3 (CAS); 8107 (CIPAC)

### Section 2. Composition/Information on Ingredients

Component	CAS Number	Content (g/L)
Azoxystrobin	131860-33-8	Min.200
Difenoconazole	119446-68-3	Min. 125
Inerts	Not applicable	Balance to 1 liter

### Section 3. Hazards Identification

CAUTION! Harmful if swallowed or inhale. May cause skin and eye irritation. Avoid contact with skin and eyes. Avoid breathing spray mist. After contact with skin, wash immediately with plenty of water. Keep out of reach of children. Keep away from food, drink and animal feed.

### Section 4. First Aid Measures

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

**Skin Contact:** Take off all contaminated clothing immediately. Wash off

immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

**Inhalation:** Wearing proper respiratory protection before rescues. Immediately remove the affected victim from exposure to an area of fresh air. If not breathing, give artificial respiration; if breathe difficult, give oxygen. Get medical attention.

**Ingestion:** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting.

**Emergency numbers:** TOXICOLOGIA HOSPITAL DE CLINICAS TEL.: 1722

### **Section 5. Fire Fighting Measures**

**Fire and Explosive Hazard:** Flash point  $>100^{\circ}\text{C}$ , no flammable. Negligible fire and explosion hazard.

**Firefighting Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

**Firefighting Precaution:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Keep unnecessary people away. Dike area of fire to prevent material run-off. Decontaminate emergency personnel with soap and water before leaving the fire area. Avoid breathing dusts, vapors and fumes from burning materials. Control run-off water.

### **Section 6. Accidental Release Measures**

In case materials are released, contact emergency response personnel. Keep unnecessary persons away. If emergency response personnel are unavailable, dike large spills and transfer to sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Cautiously neutralize remainder with an alkaline substance and place in a sealed container for disposal. Avoid contact of spilled materials and runoff with soil and surface waterways. Use suitable protective equipment (Section 8). Follow all fire prevention procedures (Section 5).

### **Section 7. Handling and Storage**

**Handling Precautions:** No special protective measures against fire required. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.

**Storage Precautions:** Store in the original container and keep closed. Store in cool, dry and well-ventilated place. Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

### **Section 8. Exposure Controls/Personal Protection**

**Engineering Controls:** Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust or process

enclosure ventilation system.

**Eye/Face:** To protect against accidental eye contact, goggles/face-shield should be worn.

**Skin Protection:** Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.). Wear as appropriate: impervious protective suit.

**Respiratory Protection:** Ensure good ventilation. For maximum protection, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

### Section 9. Physical and Chemical Properties

<b>Appearance</b>	Off-white flowable liquid
<b>Odor</b>	Weak odor
<b>Specific Gravity</b>	Approx. 1.13 g/ml
<b>Water Solubility</b>	Disperse in water

### Section 10. Stability and Reactivity

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

**Incompatibilities:** Avoid mixing with nitric acid, sulfuric acid, strong oxidizing agent and reducing agent.

**Hazard Decomposition:** The substance decomposes on burning and produces toxic and corrosive fumes including hydrogen chloride, nitrogen oxides and carbon oxides.

**Hazard Polymerization:** Will not occur.

### Section 11. Toxicological Information

**Acute Oral Toxicity:** LD<sub>50</sub> for rats >2000 mg/kg

**Acute Dermal Toxicity:** LD<sub>50</sub> for rabbits >2000 mg/kg

**Acute Inhalation Toxicity:** LC<sub>50</sub> (4 h) for rats >1.15 mg/l.

**Skin Irritation:** No irritation to skin of rabbits.

**Eye Irritation:** No irritation to eyes of rabbits.

**Toxicity Class:** III (WHO), Slightly hazardous.

### Section 12. Ecological Information

Do not contaminate dams, waterways or sewers with this product. Referenced technical active ingredient ecological information list as below:

Azoxystrobin:

**Birds** Acute oral LD<sub>50</sub> for mallard ducks and bobwhite quail >2000 mg/kg.  
Dietary LC<sub>50</sub> (5 d) for bobwhite quail and mallard ducks >5200 mg/kg diet.

**Fish** LC<sub>50</sub> (96 h) for rainbow trout 0.47, bluegill sunfish 1.1, carp 1.6, sheepshead minnow 0.66 mg/l.

**Bees** LD<sub>50</sub> for honeybees (oral) >25 µg/bee; (contact) >200 µg/bee.

**Environmental Fate:**

**Animals** In rats, the majority of radiolabel is excreted in the faeces, with little remaining radioactivity in any tissues of the animal. A large number of metabolites was formed, of which only the glucuronide of azoxystrobin acid is present at >10% of the administered dose. In goats and hens, azoxystrobin is also excreted rapidly, with low residues in milk, meat or eggs.

**Plants** In wheat, grapes and peanuts, metabolism was extensive, but parent azoxystrobin was the only major (>10%) residue. Metabolism followed similar pathways in all three crops.

**Soil/Environment**

Average DT<sub>50</sub> (lab.) 8 w (20°C, pF 2). In soil, in the dark, six identified metabolites were formed; over 1 y, 45% of applied radiolabel is evolved as CO<sub>2</sub>. Dissipation in the field is faster, average DT<sub>50</sub> 2 w, DT<sub>90</sub> 41 w. On soil, photolysis DT<sub>50</sub> 11 d. Azoxystrobin and its degradates have low to moderate mobility in soil; typical K<sub>oc</sub> for azoxystrobin c. 500. Field dissipation studies showed that neither azoxystrobin nor its major degradates were typically found in soil below the top 15 cm.

**Difenoconazole:**

**Birds** LD<sub>50</sub> (9-11 d) for mallard ducks >2150, Japanese quail >2000 mg/kg. LC<sub>50</sub> for bobwhite quail 4760, mallard ducks >5000 ppm.

**Fish** LC<sub>50</sub> (96 h) for rainbow trout 0.81, bluegill sunfish 1.2, sheepshead minnow 0.82 mg/l.

**Bee** Non-toxic to honeybees; LD<sub>50</sub> (oral) >187 µg/bee; LC<sub>50</sub> (contact) >100 µg/bee.

**Environmental Fate:**

**Animals** After oral administration, difenoconazole was rapidly eliminated practically to entirety, with urine and faeces. Residues in tissues were not significant and there was no evidence for accumulation.

**Plants** Two routes of metabolism: one by a triazole route to triazolylalanine and triazolylacetic acid; the other by hydroxylation of the phenyl ring followed by conjugation.

**Soil/Environment**

Practically immobile in soil, strong adsorption to soil particles (mean adsorption coefficient normalised to organic carbon, K<sub>oc,ads</sub> 3759 ml/g), low potential to leach below top soil layer. Soil dissipation rate is slow and dependent on application rate; DT<sub>50</sub> 50-150 d. DT<sub>50</sub> from water 2 d.

**Section 13. Disposal Considerations**

Disposal of product would be treated, stored, transported, and disposed of according to the local waste regulation authority. Do not flush to surface water or sanitary sewer system.

#### **Section 14. Transport Information**

##### **IMO Classification**

Proper Shipping Name: Environmentally hazardous substance, Liquid, N.O.S.

**Class:** 9  
**UN No.:** 3082  
**Packaging Group** III

#### **Section 15. Regulator Information**

##### **European/International Regulation:**

Hazard Symbols:

N Dangerous to environment

Risk Phrases:

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 1/2 Keep locked-up and out of reach of children  
S 13 Keep away from food, drink and animal feeding stuffs  
S 24/25 Avoid contact with skin and eyes.  
S 28 After contact with skin, wash immediately with plenty of soap and water.  
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately.  
S 60 This material and its container must be disposed of as hazardous waste  
S 61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

#### **Section 16. Other Information**

**Disclaimer: The above information contained herein is given in good faith and to the best of our knowledge. However, no warranty is expressed or implied.**

**Prepared by:** Agrochemical Dept.  
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