

Tetraconazole + Azoxystrobin Brixen™

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Tetraconazole + Azoxystrobin
Trade Names	Brixen™
CAS No.	Mixture
EPA Identification Number	EPA Reg. No. 35915-22

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Herbicide
Uses Advised Against	Do NOT aerosolize or atomize to produce inhalable-size particles.

Details of the supplier of the safety data sheet

Company Identification	Sipcam Agro USA, Inc. 2525 Meridian Parkway, Suite 350 Durham, NC 27713 United States of America
Telephone	(919) 226-1195

Emergency telephone number

Emergency Phone No.	CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)
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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200)	Acute Tox. 4; Eye Irrit. 2
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Label elements

This chemical is a pesticide product registered by the United States 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 (SDS) and for workplace labels of non pesticide chemicals. The labeling information below applies to non-pesticide workplace labels. For pesticide label information, refer to Section 15.

Hazard Symbol(s)



WARNING

Signal Word(s)

Hazard Statement(s)

Precautionary Statement(s)

Harmful if swallowed.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wash hands and exposed skin after use.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not eat, drink or smoke when using this product.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation

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develops or persists.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.

Other hazards

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Additional Information

None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	%W/W	CAS No.	Hazard Statement(s)
Azoxystrobin	13.76	131860-33-8	Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410
Tetraconazole	6.67	112281-77-3	Acute Tox. 4; H302, H332 Aquatic Chronic 2; H411
Surfactant	1.81	Trade Secret	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411

Additional Information – None.

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Skin Contact	Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if eye irritation develops or persists.
Ingestion	Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.

Most important symptoms and effects, both acute and delayed Harmful if swallowed.

Indication of any immediate medical attention and special treatment needed None known.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

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-Suitable Extinguishing Media	Non-flammable / Non-combustible. As appropriate for surrounding fire.
-Unsuitable Extinguishing Media	None known
Special hazards arising from the substance or mixture	Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also hydrogen fluoride, and other fluorinated organic compounds. Decontaminate equipment or materials used in pesticide fires.
Advice for fire-fighters	Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection.
Environmental precautions	Prevent substance entering sewers. Avoid release to the environment.
Methods and material for containment and cleaning up	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery. Collect spillage. Wash the spillage area with water. If possible prevent water running into sewers.
Reference to other sections	None
Additional Information	None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Avoid breathing dust / spray. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area.
Conditions for safe storage, including any incompatibilities	
-Storage temperature	Store in a well-ventilated place. Keep cool.
-Incompatible materials	Strong oxidizing agents or reducing agents. Strong acids / bases.
Specific end use(s)	Herbicide

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
None	-----	-----	-----	-----	-----	-----

Exposure controls

Appropriate engineering controls	Do NOT aerosolize or atomize to produce inhalable-size particles. Use low-pressure coarse spray only.
Personal protection equipment	
Eye/face protection	Wear protective eyewear (goggles, face shield, or safety glasses).



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Skin protection (Hand protection/ Other)



Gloves (PVC, Neoprene, or Natural rubber).

Respiratory protection



Not normally required.

Thermal hazards

Not normally required.

Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid Suspension
Color.	Light Beige -Pale yellow
Odor	None
Odor Threshold (ppm)	Not available
pH (Value)	5.9 (1% @ 25°C)
Melting Point/Freezing Point (C)	Not available
Boiling point/boiling range (°C)	162
Flash Point (°C)	Not flammable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Explosive Limit Ranges	Not applicable
Vapour Pressure (Torr)	2.48 x 10 ⁻⁸ @ 25 °C
Vapour Density (Air=1)	Not available
Density (g/ml)	1.49 @ 25 °C
Specific Gravity	1.07
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	Not available
Decomposition Temperature (°C)	Not available
Kinematic Viscosity (cSt)	360.43 @ 25°C
Explosive properties	Not explosive
Oxidizing properties	Not oxidising
Other information	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	Strong oxidizing agents or reducing agents. Strong acids / bases.
Hazardous decomposition product(s)	Combustion or thermal decomposition will evolve toxic and irritant vapours: acrid smoke. Forms oxides of carbon and nitrogen, also hydrogen fluoride, and other fluorinated organic compounds.

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SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Skin Contact, Eye Contact

Information on toxicological effects

Product as formulated:

Acute toxicity (calculated / estimated)	Oral: LD50 ~500 mg/kg-bw (rats, female) Dermal: LD50 >4000 mg/kg-bw Inhalation: LD50 > 2.16 mg/L (rat) (Aerosol)
Irritation/Corrosivity	Non-irritating to skin or eyes.
Sensitization	It is not a skin sensitizer in Guinea pigs.

Azoxystrobin (CAS# 131860-33-8):

Acute toxicity (calculated / estimated)	Oral: LD50 >5000 mg/kg-bw (rat) Dermal: LD50 >2000 mg/kg-bw (rat) Inhalation: LD50 0.96 mg/L (4 hr) (rat, male) 0.69 mg/L (4 hr) (rat, female) (Inhalable Dust)
Irritation/Corrosivity	Slight irritant to eyes and skin.
Sensitization	Not to be expected.
Repeated dose toxicity	Not to be expected.
Carcinogenicity	Not to be expected.

NTP	IARC	ACGIH	OSHA
No.	No.	No.	No.

Mutagenicity	Not to be expected.
Reproductive toxicity	Not to be expected.

Tetraconazole (CAS# 112281-77-3):

Acute toxicity (calculated / estimated)	Oral LD50: 1031 - 1248 mg/kg-bw (rat) Dermal LD50: >2000 mg/kg-bw (rabbit) Inhalation LC50: > 3.66 mg/L (4 hr) (rat)
Irritation/Corrosivity	Unlikely to cause skin irritation. May cause eye irritation.
Sensitization	Not to be expected.
Repeated dose toxicity	Not to be expected. NOAEL (90 day) = 4.1 mg/kg (rat)
Carcinogenicity	Not to be expected.

NTP	IARC	ACGIH	OSHA
No	No	No	No

Mutagenicity	Not to be expected.
Reproductive toxicity	Not to be expected.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Azoxystrobin (CAS# 131860-33-8):

Ecotoxicity

Short term	LC50 (96 hour): 0.47 mg/L(fish)
Long Term	Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Persistent



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Bioaccumulative potential	The substance has low potential for bioaccumulation.
Mobility in soil	The product has low mobility in soil.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.
Additional Information	None known.

SECTION 14: TRANSPORT INFORMATION

	Land transport (U.S. DOT) *	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	UN 3082	UN 3082	UN 3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s. (Azoxystrobin & Tetraconazole)		
Transport hazard class(es)	9	9	9
Packing group	III	III	III
Hazard label(s)	Marine Pollutant	Marine Pollutant	Marine Pollutant
Environmental hazards	Yes	Yes	Yes
Special precautions for user	None Assigned	None Assigned	None Assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

* Not regulated for ground shipments in the U.S. in non-bulk packaging (<119 gallons).

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or exempt.

EPA FIFRA Information for SDS Section 15 (Regulatory Information):

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non pesticide chemicals.

The hazard information required on the pesticide label is reproduced below:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.



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USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, and freshwater and estuarine/marine 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory

Azoxystrobin and a degradate of azoxystrobin are known to leach through soil to groundwater under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soil and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential of leaching of azoxystrobin and a degradate of azoxystrobin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Notify state and/or Federal authorities and Oxon Italia S.p.A. immediately if you observe any adverse environmental effects due to use of this product.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
None	-----	-----	-----

SARA 311/312 - Hazard Categories:

- Fire
 Sudden Release
 Reactivity
 Immediate (acute)
 Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
None	-----	-----

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)	TPQ (Pounds)
None	-----	-----	-----	-----

Proposition 65 (California):

Chemical Name	CAS No.	Typical %wt.	Hazards
None	-----	-----	-----

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1 - 16.

Date of preparation: February 3, 2017

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H331: Toxic if inhaled.
- H332: Harmful if inhaled.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H411: Toxic to aquatic life with long lasting effects.

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