



Andiamo™ 230

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name Mixture
Trade Names Andiamo™ 230
CAS No. Mixture
EPA Identification Number EPA Reg. No. 35915-20

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

Identified Use(s) Fungicide
Uses Advised Against It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Details of the supplier of the safety data sheet

Company Identification Oxon Italia S.p.A.
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)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) Not classified as dangerous for supply/use.

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 None
Hazard Statement(s) None
Precautionary Statement(s) IF SWALLOWED: Rinse mouth. Treat symptomatically.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
IF ON SKIN: Wash with plenty of soap and water. If symptoms develop, obtain medical attention. Treat symptomatically.
Keep out of reach of children.

Other hazards

Harmful to aquatic life with long lasting effects.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	%W/W	CAS No.	Hazard Statement(s)
Tetraconazole	20.5	112281-77-3	Acute Tox. 4; H302, H332 Aquatic Chronic 2: H411

Additional Information – None.

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Inhalation	Not normally required. Move person to fresh air. If breathing is laboured, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If symptoms develop, obtain medical attention. Treat symptomatically.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
Ingestion	Rinse mouth. Treat symptomatically.

Most important symptoms and effects, both acute and delayed None known.

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

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	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. Decontaminate equipment or materials used in pesticide fires.

Advice for fire-fighters A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear protective gloves/eye protection.

Environmental precautions Prevent substance entering sewers.

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 contact with skin and eyes. When using do not eat, drink or smoke.

Conditions for safe storage, including any incompatibilities

-Storage temperature	Store at room temperature.
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Andiamo™ 230

-Incompatible materials

Strong oxidising agents.

Specific end use(s)

Herbicide

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

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

Recommended monitoring method

None

Exposure controls

Appropriate engineering controls

Do **NOT** aerosolize or atomize to produce inhalable-size particles. Use low-pressure course spray only.

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)

Wear protective gloves. (Nitrile rubber, PVC, Natural rubber)



Respiratory protection

Normally no personal respiratory protection is necessary.



Thermal hazards

Not normally required.

Environmental Exposure Controls

None known

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Color.	Light clear yellow/slightly yellow
Odor	Not available
Odor Threshold (ppm)	Not available
pH (Value)	5.35 @ 25°C
Melting Point/Freezing Point (C)	Not available
Boiling point/boiling range (°C)	Not available
Flash Point (°C)	Not flammable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Explosive Limit Ranges	Not applicable
Vapour Pressure (Torr)	Not available
Vapour Density (Air=1)	Not available
Density (g/ml)	Not available



Andiamo™ 230

Specific Gravity	1.1187 @ 20 °C
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)	463.2 cSt @ 20°C; 201.92 cSt @ 40°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	None known
Hazardous decomposition product(s)	None known

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Skin Contact, Eye Contact

Information on toxicological effects

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

Tetraconazole (CAS# 112281-77-3):

Ecotoxicity

Short term	LC50 (96 hour): 4.3 - 4.8 mg/L(fish) EC50 (48 hour): 3 mg/L (<i>Daphnia magna</i>) EC50 (72 hour): 0.41 mg/l (<i>scenedesmus subspicatus</i>)
Long Term	Toxic to aquatic life with long lasting effects.

Persistence and degradability	Persistent
Bioaccumulative potential	No data
Mobility in soil	The product has moderate mobility in soil.
Results of PBT and vPvB assessment	No data
Other adverse effects	None known.



Andiamo™ 230

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			
Proper Shipping Name			
Transport hazard class(es)			
Packing group			
Environmental hazards			
Special precautions for user			
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable			

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 polymer 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:

CAUTION: Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, and viton ≥14 mils.

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves as indicated above.

Follow 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 use 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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly with soap and water after handling and 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.



Andiamo™ 230

ENVIRONMENTAL HAZARDS

This product may be 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 this product, and do not apply when atmospheric conditions favor drift or runoff. Do not contaminate water when disposing of equipment washwater or rinsate. In order to mitigate concern for reproductive effects to endangered bird and mammal species which may occur incidentally in sugarbeet growing areas, you are required to ascertain through the state Department of Agriculture, or Cooperative Extension Service, whether the treatment area may contain habitat of federally listed bird and mammal species; if so, treatment must be avoided in these areas.

PHYSICAL AND CHEMICAL HAZARDS

Do not mix or allow to come into contact with oxidizing agents. Do not allow the ratio of water:product in the field to exceed 1:1. A hazardous chemical reaction may occur.

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.

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

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

SARA 311/312 - Hazard Categories: None

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 7, 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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Andiamo™ 230

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