



Andiamo® 230 Fungicide

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

| | |
|---------------------------|------------------------|
| Chemical Name | Mixture |
| Trade Names | Andiamo® 230 Fungicide |
| CAS No. | Mixture |
| EPA Identification Number | EPA Reg. No. 60063-81 |

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 | 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) |
|---------------------|--|

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.

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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. |

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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.
- 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



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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 |
| 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. |



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| 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 (*Daphnia magna*)
 EC50 (72 hour): 0.41 mg/l (*scenedesmus subspicatus*)

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.

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 | | | |

Not classified as dangerous for transport.

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):

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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.

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 | ---- | ---- |



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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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