



# Minerva<sup>®</sup> Fungicide

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Chemical Name	Mixture
Trade Names	Minerva <sup>®</sup> Fungicide
CAS No.	Mixture
EPA Identification Number	EPA Reg. No. 60063-12

**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 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)	Not classified according to OSHA 29 CFR 1910.1200 criteria. Observe directions on label and instructions for use. See Also Section 15.
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**Label elements**

This is a pesticide product registered with 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)	None
Signal Word(s)	None
Hazard Statement(s)	None
Precautionary Statement(s)	Observe directions on label and instructions for use. See Also Section 15.

**Other hazards** Harmful to aquatic life.

**Additional Information** None

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Composition/information on ingredients	%W/W	CAS No.	Hazard Statement(s)
Tetraconazole	~ 12	112281-77-3	Acute Tox. 4; H302 Acute Tox. 4; H332 Aquatic Acute 2; H401 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. If breathing is laboured, administer oxygen. Call a POISON CENTER/doctor if you feel unwell. Treat symptomatically.
Skin Contact	Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention. Treat symptomatically. Contaminated clothing should be laundered before reuse.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Ingestion	Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. Rinse mouth.
<b>Most important symptoms and effects, both acute and delayed</b>	None
<b>Indication of any immediate medical attention and special treatment needed</b>	Call a POISON CENTER or doctor/physician if you feel unwell.

## SECTION 5: FIRE-FIGHTING MEASURES

### Extinguishing Media

- Suitable Extinguishing Media
- Unsuitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray.  
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 chlorine and chlorinated compounds and fluorine and fluorinated 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

Observe directions on label and instructions for use. See Also Section 15.

### Environmental precautions

Observe directions on label and instructions for use. See Also Section 15.

### Methods and material for containment and cleaning up

Observe directions on label and instructions for use. See Also Section 15.

### Reference to other sections

Observe directions on label and instructions for use. See Also Section 15.

### Additional Information

None

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

Observe directions on label and instructions for use. See Also Section 15.

## Conditions for safe storage, including any incompatibilities

- |                         |   |
|-------------------------|---|
| -Storage temperature    | Store at room temperature. Do not allow material to freeze. |
| -Incompatible materials | Strong oxidising agents.                                    |

**Specific end use(s)** Fungicide

## 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. Observe directions on label and instructions for use. See Also Section 15.

#### Personal protection equipment

Eye/face protection



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

Skin protection (Hand protection/ Other)



Gloves. Observe directions on label and instructions for use. See Also Section 15.

Respiratory protection



Observe directions on label and instructions for use. See Also Section 15.

Thermal hazards

Not normally required.

#### Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses. Observe directions on label and instructions for use. See Also Section 15.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Liquid
Colour.	Light Yellow
Odour	Slightly aromatic
Odour Threshold (ppm)	Not available.
pH (Value)	6.3 - 6.4
Melting Point (°C) / Freezing Point (°C)	Not available.
Boiling point/boiling range (°C):	Not available.
Flash Point (°C)	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Explosive Limit Ranges	Not available.
Vapour pressure (Pascal)	Not available.
Vapour Density (Air=1)	Not available.
Density (g/ml)	1.0831
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)	~ 1.2 @ 25 °C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
<b>Other information</b>	Not available.

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	No hazardous reactions known if used for its intended purpose.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None anticipated.
<b>Conditions to avoid</b>	Incompatible materials
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition product(s)</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds and fluorine and fluorinated compounds. Decontaminate equipment or materials used in pesticide fires.

## SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

### Information on toxicological effects

#### Substances

Not applicable

#### Mixtures

Acute toxicity

Oral: LD50 >5000 mg/kg-bw (rat)  
Dermal: LD50 >2000 mg/kg-bw (rat)  
Inhalation: LC50 >3.17 mg/L (rat)

Skin corrosion/irritation

Unlikely to cause skin irritation.

Serious eye damage/irritation

Unlikely to cause eye irritation.

Respiratory or skin sensitization

It is not a skin sensitiser in animal tests.

Germ cell mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

STOT - single exposure

Not available.

STOT - repeated exposure

Not available.

Aspiration hazard

Not available.

#### Substances in preparations / mixtures

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

Tetraconazole (CAS# 112281-77-3):

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** Part of the components are poorly biodegradable.  
**Bioaccumulative potential** Not determined.  
**Mobility in soil** Not determined.  
**Results of PBT and vPvB assessment** Not classified as PBT.  
**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. Observe directions on label and instructions for use. See Also Section 15.

**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			
Hazard label(s)			
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: This is a registered pesticide product regulated under Federal Insecticide, Fungicide, and Rodenticide Act and, therefore, the components of this product are not subject to listing on the TSCA inventory.



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

This is a pesticide product registered with 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 or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

### 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: barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, and viton ≥14 mils.

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.

### 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 care 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 washwaters 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.

The pesticide label also includes other important information, including directions for use.

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

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

**SARA 311/312 - Hazard Categories:** See SECTION 2 - HAZARDS IDENTIFICATION

### 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	----	-----	-----



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## SECTION 16: OTHER INFORMATION

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

**Date of preparation:** December 8, 2021

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

**Hazard Statement(s)**

- H302: Harmful if swallowed.
- H332: Harmful if inhaled.
- H401: Toxic to aquatic life.
- H411: Toxic to aquatic life with long lasting effects.

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