

## RIDOMIL GOLD® COPPER

Date: 4/10/2015  
Replaces: 8/5/2011

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **RIDOMIL GOLD® COPPER**

Product No.: A9601B

Use: Fungicide

Manufacturer: Syngenta Crop Protection, LLC  
Post Office Box 18300  
Greensboro NC 27419

Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Oral: Category 4  
Inhalation: Category 4  
Specific Target Organ Toxicity: Repeated Category 2  
Specific Target Organ Toxicity: Respiratory Irritation Category 3  
Eye Damage/Irritation: Category 1  
Carcinogenicity: Category 1A

Signal Word (OSHA): Danger

Hazard Statements: Harmful if swallowed  
Causes serious eye damage  
Harmful if inhaled  
May cause respiratory irritation  
May cause cancer  
May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust.  
Avoid breathing mist, vapors, spray.  
Wash hands and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves, protective clothing, eye protection.

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Wear eye protection.

If swallowed: Call a poison center, doctor or Syngenta if you feel unwell. Rinse mouth.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center, doctor or Syngenta.

Call a poison center, doctor or Syngenta if you feel unwell.

Get medical advice if you feel unwell.

Store locked up.

Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: May form combustible dust concentrations in air.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common Name	CAS Number	Concentration
Crystalline Silica, Quartz and Cristobalite	Crystalline Silica, Quartz and Cristobalite	14808-60-7	<1.0%
Kaolin Clay	Kaolin Clay	1332-58-7	Trade Secret
Amorphous Silica	Amorphous Silica	7631-86-9	Trade Secret
Diatomaceous Earth	Diatomaceous Earth	61790-53-2	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<34.0%
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester	Mefenoxam	70630-17-0 & 69516-34-3	5.0%
Copper (II) Hydroxide	Copper Hydroxide	20427-59-2	60.0%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

**4. FIRST AID MEASURES**

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

Eye irritation

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Respiratory irritation

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

**7. HANDLING AND STORAGE**

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Crystalline Silica, Quartz and Cristobalite	10 mg/m <sup>3</sup> /(%SiO <sub>2</sub> +2) (respirable dust)	0.025 mg/m <sup>3</sup> (respirable silica)	0.05 mg/m <sup>3</sup> (respirable dust)	NIOSH

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Kaolin Clay	15 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	10 mg/m <sup>3</sup> TWA (total); 5 mg/m <sup>3</sup> TWA (respirable)	NIOSH
Amorphous Silica	80 mg/m <sup>3</sup> %SiO <sub>2</sub> TWA (total dust)	Not Established	Not Established	Not Applicable
Diatomaceous Earth	80 mg/m <sup>3</sup> %SiO <sub>2</sub> (20 mppcf) TWA	Not Established	6 mg/m <sup>3</sup> TWA	NIOSH
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mefenoxam	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta
Copper Hydroxide	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA	

### Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

### Individual protection measures:

#### Ingestion:

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

#### Eye Contact:

Where eye contact is likely, use dust-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

#### Skin Contact:

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

#### Inhalation:

A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use NIOSH certified respirator with any N, R, P or HE filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue powder

Odor: Clay-like

Odor Threshold: Not Available

pH: 8 - 10 (1% suspension in water)

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Applicable

Flash Point (Test Method): Not Applicable

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Copper Hydroxide Not determined  
Mefenoxam 2.5 x 10<sup>-5</sup> mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 23.3 lbs/ft<sup>3</sup>

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Solubility (ies): Copper Hydroxide 0.1 - 5 ppm  
Mefenoxam 26 g/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Available

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Eye irritation, Respiratory irritation

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	550 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2020 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	1.73 mg/l air - 4 hours
Eye Contact:	Corrosive (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

#### Reproductive/Developmental Effects

Copper Hydroxide: Not available.

Mefenoxam: None observed.

#### Chronic/Subchronic Toxicity Studies

Copper Hydroxide: Lung irritation and moderate temporary irritation to eyes. Exposure to copper-containing compounds is reported to cause liver injury (cirrhosis, jaundice), kidney damage, blood disorders (hemolysis, anemia,

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methemoglobinemia), and respiratory tract effects (nasal ulceration/irritation).

Mefenoxam: Liver effects at high dose animal tests.

Carcinogenicity

Copper Hydroxide: None observed.

Mefenoxam: None observed.

Chemical Name	NTP/IARC/OSHA Carcinogen
Crystalline Silica, Quartz and Cristobalite	IARC 1; ACGIH A2
Kaolin Clay	No
Amorphous Silica	IARC Group 3
Diatomaceous Earth	IARC 3
Other ingredients	No
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetyl-amino]-propionic acid methyl ester	No
Copper (II) Hydroxide	No

Other Toxicity Information

None

Toxicity of Other ComponentsAmorphous Silica

Amorphous Silica is listed as an IARC (Group 3) carcinogen not classifiable as a human carcinogen (No Data Available) with limited animal evidence. Prolonged exposure to amorphous silica may cause damage to respiratory system and irritation to skin and eyes.

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Diatomaceous Earth

The carrier in this product is naturally occurring diatomaceous earth. Natural diatomaceous earth contains a small percentage of naturally occurring crystalline silica, which is considered a human carcinogen. Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. The amount of crystalline silica in this product is minimal and the potential for overexposure in manufacturing operations is low.

Kaolin Clay

May cause eye and respiratory tract irritation.

Long-term exposure to high concentrations of this dust may produce x-ray evidence of dust in the lungs.

Continued long-term exposure may affect respiratory function in some individuals.

Other ingredients

Not Applicable

Target OrgansActive Ingredients

Copper Hydroxide: Liver, blood, kidney, respiratory tract

Mefenoxam: Liver

Inert Ingredients

Amorphous Silica: Respiratory tract, skin, eye

Crystalline Silica, Quartz and

Cristobalite:

Diatomaceous Earth: Respiratory tract

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Kaolin Clay:	Eye, respiratory tract, lung
Other ingredients:	Not Applicable

### 12. ECOLOGICAL INFORMATION

#### Eco-Acute Toxicity

##### Mefenoxam:

Fish (Rainbow Trout) 96-hour LC50 > 121 ppm  
Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 > 113 ppm  
Bird (Bobwhite Quail) 14-day LD50 981 mg/kg

##### Copper Hydroxide:

Fish (Rainbow Trout) 96-hour LC50 25 ppm  
Bird (Bobwhite Quail) LD50 Oral 3400 mg/kg

#### Environmental Fate

##### Copper Hydroxide:

The degree of mobility of copper in the environment depends upon the pH of ambient soils and waters. The higher the acidity, the more soluble copper salts are and, hence, the more mobile. Partitioning of copper into air is negligible due to the low vapor pressure of copper salts.

##### Mefenoxam:

The information presented here is for the active ingredient, mefenoxam.  
Does not bioaccumulate. Not persistent in soil or water. Moderate mobility in soil. Mixes/sinks (after 24 h).

### 13. DISPOSAL CONSIDERATIONS

#### Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

#### DOT Classification

Ground Transport - NAFTA  
Proper Shipping Name: Copper-based Pesticides, Solid, Toxic  
Hazard Class or Division: Division 6.1  
Identification Number: UN 2775  
Packing Group: PG III

#### Comments

Water Transport - International  
Proper Shipping Name: Copper-based Pesticides, Solid, Toxic (Copper Hydroxide), Marine Pollutant  
Hazard Class or Division: Division 6.1  
Identification Numbers: UN 2775  
Packing Group: PG III

#### Air Transport

Proper Shipping Name: Copper-based Pesticides, Solid, Toxic (Copper Hydroxide)  
Hazard Class or Division: Division 6.1

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Identification Numbers: UN 2775  
Packing Group: PG III

**15. REGULATORY INFORMATION****Pesticide Registration:**

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Danger:** Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Harmful if swallowed, inhaled, or absorbed through skin. Avoid breathing dust or spray mist. 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. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):  
100-804

**EPCRA SARA Title III Classification:**

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Copper Hydroxide 60.0% (CAS No. 20427-59-2)

California Proposition 65:  
Not Applicable

**CERCLA/SARA 304 Reportable Quantity (RQ):**

Contains copper compounds. No RQ assigned.

RCRA Hazardous Waste Classification (40 CFR 261):  
Not Applicable

TSCA Status:  
Exempt from TSCA, subject to FIFRA

**16. OTHER INFORMATION****NFPA Hazard Ratings**

Health: 3  
Flammability: 1  
Instability: 0

**HMIS Hazard Ratings**

Health: 3\*  
Flammability: 1  
Reactivity: 0

Syngenta Hazard Category: D,S

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/3/1996  
Revision Date: 4/10/2015  
Section(s) Revised: 1-16

Replaces: 8/5/2011



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