

**Novartis Crop Protection, Inc**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**

**Novartis : 1-800-888-8372**  
**CHEMTREC : 1-800-424-9300**

**1. CHEMICAL IDENTIFICATION**

Product Name:	<b>RIDOMIL GOLD/COPPER</b>	Product No.:	A-9601 B
EPA Signal Word:	Danger		
Active Ingredient(%):	Copper Hydroxide (60.0%)	CAS No.:	20427-59-2
Chemical Name:	Copper (II) Hydroxide		
Chemical Class:	Weak Base of Transition Metal		
Active Ingredient(%):	Mefenoxam (5.04%)	CAS No.:	Mixture
Chemical Name:	D-Alanine, N-(2,6-dimethylphenyl)-N-(methoxyacetyl)-,methyl ester		
Chemical Class:	Phenylamide Fungicide		

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Kaolin Clay	15 mg/m <sup>3</sup> (Total Dust);5 mg/m <sup>3</sup> (Respirable)	2 mg/m <sup>3</sup> (Respirable)	Not Established	No
Amorphous Silica	80 mg/m <sup>3</sup> /%SiO <sub>2</sub>	10 mg/m <sup>3</sup>	Not Established	IARC, 3
Surfactant	Not Established	Not Established	15 mg/m <sup>3</sup> (Total Dust)*	No
Sodium Sulfite	Not Established	Not Established	Not Established	IARC, 3
Carrier	5 mg/m <sup>3</sup> (Respirable Dust)	10 mg/m <sup>3</sup> (Total Dust)	Not Established	No
Diatomaceous Earth	80 mg.m <sup>3</sup> /%SiO <sub>2</sub>	10 (Inhalable);3 mg/m <sup>3</sup> (Respirable)	Not Established	IARC, 2A
Surfactant	Not Established	Not Established	15 mg/m <sup>3</sup> (Total Dust)*	No
Mefenoxam (5.04%)	Not Established	Not Established	Not Established	No
Copper Hydroxide (60.0%)	1 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	Not Established	No

\* recommended by manufacturer

**3. HAZARDS IDENTIFICATION**
Notes to Physician

There is no specific antidote if this product is ingested.  
 Monitor blood for evidence of hemolysis and methemoglobinemia.  
 Treat symptomatically.  
 Probable mucosal damage may contraindicate gastric lavage.  
 Contact with eyes may require specialized ophthalmologic attention.

Do not induce emesis.

#### Symptoms of Acute Exposure

Contact with eyes can cause irreversible injury or damage. Inhalation may result in irritation of respiratory tract or breathing difficulty.

#### Hazardous Decomposition Products

None Known

#### Physical Properties

Appearance: Carolina Sky Blue Powder

Odor: Clay-Like

#### Unusual Fire, Explosion and Reactivity Hazards

None Known

### **4. FIRST AID MEASURES**

If poisoning is suspected, immediately contact a physician, the nearest hospital, or the nearest Poison Control Center. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

**Ingestion:** DO NOT INDUCE VOMITING. If victim is fully conscious, drink promptly a large quantity of milk, egg white, gelatin solution or if these are not available, large quantities of water and get medical attention. Never give anything by mouth to an unconscious person.

**Eye Contact:** Immediately rinse eyes with a large amount of running water. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.

**Skin Contact:** Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

**Inhalation:** Move victim from contaminated area to fresh air. Apply artificial respiration if necessary.

#### Notes to Physician

There is no specific antidote if this product is ingested.

Monitor blood for evidence of hemolysis and methemoglobinemia.

Treat symptomatically.

Probable mucosal damage may contraindicate gastric lavage.

Contact with eyes may require specialized ophthalmologic attention.

Do not induce emesis.

#### Medical Condition Likely to be Aggravated by Exposure

Individuals with pre-existing respiratory conditions should use care in handling this product.

### **5. FIRE FIGHTING MEASURES**

#### Fire and Explosion

Flash Point (Test Method): Not Applicable

Flammable Limits (% in Air): Lower: %; Upper: % Not Applicable

Autoignition Temperature: Not Available

Flammability: Not Flammable

#### Unusual Fire, Explosion and Reactivity Hazards

None Known

#### In Case of Fire

Use dry chemical, foam, or CO2 extinguishing media. 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. Prevent use of contaminated buildings, area, and equipment until decontaminated.

### **6. ACCIDENTAL RELEASE MEASURES**

### In Case of Spill or Leak

Wear chemical goggles or a full-face shield, rubber gloves, rubber boots, long-sleeved shirt, long pants, head covering, and use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present. For small spills, sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

## **7. HANDLING AND STORAGE**

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

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS.**

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.
- Eye Contact: To avoid eye contact, wear chemical goggles or a full-face shield.
- Skin Contact: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, long pants and a head covering.
- Inhalation: To avoid breathing dust, use a particulate filter, NIOSH approved per 42 CFR Part 84. Select N or R or P type as appropriate for the oil characteristics of any other air contaminants present. Filter efficiency may range from 95 - 99.97% as appropriate for the size distribution of dusts present.

**Applicators/Handlers:** Please refer to the product label for personal protective clothing/equipment.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance: Carolina Sky Blue Powder
- Odor: Clay-Like
- Melting Point: Not Available
- Boiling Point: Not Applicable
- Specific Gravity/Density: 23.30 lbs./cu.ft.
- pH: 8-10(1% suspension in water)

### Solubility in H<sub>2</sub>O

- Copper Hydroxide : Not Available
- Mefenoxam : 26.0 g/L @ 25°C

### Vapor Pressure

- Copper Hydroxide : Not Available
- Mefenoxam : 3.30E-03 Pa @ 25°C

## **10. STABILITY AND REACTIVITY**

### Reactivity

- Stability: Stable
- Hazardous Polymerization: Will Not Occur
- Conditions to Avoid: None Known

### Hazardous Decomposition Products

None Known

## **11. TOXICOLOGICAL INFORMATION**

### Acute Toxicity/Irritation Studies

Ingestion:	<u>moderately toxic</u> Oral LD50 (Rat) : 550 mg/kg body weight
Dermal:	<u>slightly toxic</u> Dermal LD50 (Rabbit) : > 2,020 mg/kg body weight
Inhalation:	<u>slightly toxic</u> 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)

### Mutagenic Potential

Copper Hydroxide:	Not Available
Mefenoxam:	None Observed

### Reproductive Hazard Potential

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, methemoglobinemia), and respiratory tract effects (nasal ulceration/irritation).
Mefenoxam:	Liver effects at high dose levels

### Carcinogenic Potential

Copper Hydroxide:	None Observed
Mefenoxam:	None Observed

### Other Toxicity Information

Not Available

### Toxicity of Other Components

#### Amorphous Silica

Amorphous Silica is listed as an IARC (Group 3) carcinogen not classifiable as 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.

#### Carrier

Overexposure results in congestion and irritation of the throat, nasal passages and upper respiratory system. Also may cause temporary irritation and inflammation to the eyes.

#### Diatomaceous Earth

This product contains Crystalline Silica which is considered a probable human carcinogen. Chronic inhalation exposure is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to Crystalline Silica developed respiratory tract cancers.

#### Kaolin Clay

Long term overexposure to high concentrations of this dust without the use of a respirator may produce x-ray evidence of dust in the lungs and may affect respiratory function.

#### Surfactant

Exposure can result in eye, skin and respiratory tract irritation.

#### Surfactant

Exposure may result in severe irritation to skin and eyes and respiratory tract. Ingestion can result in irritation to gastrointestinal tract with vomiting, nausea and diarrhea.

### Target Organs

#### Active Ingredients

Copper Hydroxide : Liver, Blood, Kidneys and Respiratory Tract

Mefenoxam : Liver

Inert Ingredients

Amorphous Silica : Respiratory Tract, Skin and Eyes

Carrier : Eyes and Respiratory Tract

Diatomaceous Earth : Respiratory Tract

Kaolin Clay : Respiratory Tract

Surfactant : Eyes, Skin and Respiratory Tract

Surfactant : Respiratory Tract, Skin and Eyes

## 12. ECOLOGICAL INFORMATION

### Summary of Effects

Copper Hydroxide:

Not Available

Mefenoxam:

Not Available

### Eco-Acute Toxicity

Mefenoxam: Not Available

Copper Hydroxide: Bluegill Sunfish 96-hour LC50 180 ppm

### Eco-Chronic Toxicity

Mefenoxam: Not Available

Copper Hydroxide: Not Available

### Environmental Fate

Copper Hydroxide:

Not Available

Mefenoxam:

Not Available

## 13. DISPOSAL CONSIDERATION

### 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:

Copper Based Pesticides, Solid, Toxic, 6.1, UN2775, PGIII

### B/L Freight Classification

Insecticides or Fungicides; Agricultural, N.O.S.

### International Transportation

Copper Based Pesticides, Solid, Toxic, Class 6.1, UN2775, PGIII, Marine Pollutant

## 15. REGULATORY INFORMATION

### SARA Title III Classification

Section 311/312: Acute Health Hazard

Chronic Health Hazard

Section 313 chemical(s): Not Applicable

Proposition 65

Not Applicable

CERCLA Reportable Quantity (RQ)

None

RCRA Classification

Not Applicable

TSCA Status

Exempt from TSCA

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 2  
Flammability: 0  
Reactivity: 0

0	Least
1	Slight
2	Moderate
3	High
4	Severe

Questions concerning the safe handling of the product should be referred to:

Industrial Health  
1-800-334-9481

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

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