

RIDOMIL GOLD® MZ WG FUNGICIDE

Date: 8/3/2015

Replaces: 4/8/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **RIDOMIL GOLD® MZ WG FUNGICIDE**

Product No.: A9651D

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: Skin Sensitizer: Category 1B
Reproductive Toxicity: Category 2

Signal Word (OSHA): Warning

Hazard Statements: May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves, protective clothing, eye protection.
If on skin: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice.
If exposed or concerned: Get medical advice/attention.
See Section 4 First Aid Measures.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents and container in accordance with local regulations.

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

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Stabilizer	Stabilizer	Trade Secret	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<32.0%
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester	Mefenoxam	70630-17-0 & 69516-34-3	4.0%
Zinc ion and manganese-ethylene-bis-dithio carbamate	Mancozeb	8018-01-7	64.0%

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:

Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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:

Spontaneous combustion may occur at high temperatures or when exposed to water. Exposure to excessive heat or ignition sources presents a definite ignition hazard. Fire can occur in closely packed, unventilated piles of bags. Exposure to moisture promotes decomposition which can cause spontaneous combustion.

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

See also Sec. 7.

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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 it from spreading, contaminating soil, or 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 in a well-ventilated and dry area. Do not wet or heat this product during storage as decomposition and the threat of fire can result. Ideally store the product at temperatures below 86°F (30°C) but never expose this material to temperatures in excess of 122°F (50°C). Do not exceed 95°F (35°C) for large bulk storage, i.e. greater than 1 cubic meter. Store 50 kg fiber drums one high on pallets and allow air circulation between drums. Check for hot containers and immediately remove any identified to open areas for cooling and/or disposal. When handling, avoid material transfers that could expose the product to frictional heating.

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

This material would not normally become readily charged.

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
Stabilizer	15 mg/m ³ particulates not otherwise regulated (total particulates); 5 mg/m ³ (respirable)	10 mg/m ³ particulates not otherwise classified (inhalable); 3 mg/m ³ (respirable)	Not Established	Not Applicable

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Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mefenoxam	Not Established	Not Established	5 mg/m ³ TWA	Syngenta
Mancozeb	Not Established	Not Established	1 mg/m ³ TWA	Manufacturer

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.

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: Light yellow to light brown granules

Odor: Weak

Odor Threshold: Not Available

pH: 5 - 9 (1% in deionized 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: This product is combustible at elevated temperatures.

Vapor Pressure: Mancozeb Negligible
 Mefenoxam 2.5 x 10⁻⁵ mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 0.45 - 0.65 g/cm³

Solubility (ies): Mancozeb Dispersible
 Mefenoxam 26 g/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 374°F

Decomposition Temperature: Not Available

Viscosity: Not Available

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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: High temperatures and storage conditions without ventilation or with temperatures above 122°F (50°C). Do not exceed 95°F (35°C) for large bulk storage, i.e. greater than 1 cubic meter. See "Storage and Handling", Section 7.

Incompatible materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Not Applicable

Delayed, immediate and chronic effects of exposure: Allergic skin reaction

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

Ingestion: Oral (LD50 Rabbit) : > 2000 mg/kg body weight

Dermal: Dermal (LD50 Rat) : > 2000 mg/kg body weight

Inhalation: Inhalation (LC50 Rat) : > 5.13 mg/l air - 4 hours

Eye Contact: Mildly Irritating (Rabbit)

Skin Contact: Non-Irritating (Rabbit)

Skin Sensitization: Sensitizing (Guinea Pig)

Reproductive/Developmental Effects

Mancozeb: Suspected of damaging the unborn child.

Mefenoxam: None observed.

Chronic/Subchronic Toxicity Studies

Mancozeb: Thyroid, liver and nervous system effects seen in laboratory animals at high, repeat doses. Hind leg paralysis and retinopathy observed at 750 ppm (rat and dog studies).

Mefenoxam: Liver effects at high dose animal tests.

Carcinogenicity

Mancozeb: Did not show carcinogenic or mutagenic effects in animal experiments.

Mefenoxam: None observed.

Chemical Name NTP/IARC/OSHA Carcinogen

Stabilizer No

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Other ingredients	No
(R,S)-2-[(2,6-dimethylphenyl)-methoxyacetylamino]-propionic acid methyl ester	No
Zinc ion and manganese-ethylene-bis-dithio carbamate	No

Other Toxicity Information

None

Toxicity of Other Components

Other ingredients
Not Applicable

Stabilizer

Effects of overexposure: No information found for this material. It is anticipated that inhalation of significant quantities of this material will produce decreased lung capacity as is typical of nuisance dusts. Individuals who are sensitized to formaldehyde might exhibit allergic reactions from contact with this material.

Target Organs

Active Ingredients

Mancozeb:	Thyroid, liver, blood, eye, skin, respiratory system
Mefenoxam:	Liver

Inert Ingredients

Other ingredients:	Not Applicable
Stabilizer:	Lung

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

Mancozeb:

Fish (Rainbow Trout) 96-hour LC50 0.64 ppm
Green Algae 5-day EC50 47 ppb
Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.58 ppm

Environmental Fate

Mancozeb:

The information presented here is for the active ingredient, mancozeb.
Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

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).

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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

Non-Bulk Packages: Not regulated

Bulk Packages:

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Mancozeb), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

Note: Packages imported into the US are marked, labeled and distributed with the Class 9 International shipping classification.

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S., (Mancozeb), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S., (Mancozeb)

Hazard Class or Division: Class 9

Identification Number: UN 3077

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:

Caution: Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

EPA Registration Number(s):

100-1269

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard

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Reactive Hazard

Section 313 Toxic Chemicals: Mancozeb 64.0% (CAS No. 8018-01-7)

California Proposition 65:

This product contains chemical (Mancozeb and ETU) known to the State of California to cause cancer. ETU is also known to the State of California to cause birth defects or other reproductive harm.

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
 Flammability: 2
 Instability: 1

HMIS Hazard Ratings

Health: 2
 Flammability: 2
 Reactivity: 1

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

Syngenta Hazard Category: D

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 3/16/2006

Revision Date: 8/3/2015

Replaces: 4/8/2015

Section(s) Revised: 2, 4, 11, 16

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.