

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT INFORMATION

Product name : RIDOMIL GOLD
Design Code : A9651D
Use : Fungicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone number : +44 1484 538444



Dangerous for the environment



Irritant

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
mancozeb	8018-01-7		Xi	R37 R43	64 % W/W
metalaxyl-M	70630-17-0		Xn	R22 R41	4 % W/W

For the full text of the R phrases mentioned in this Section, see Section 16.

3. Hazards identification

May cause sensitization by skin contact.
 Irritating to respiratory system.
 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 May form flammable dust-air mixture.

4. FIRST AID MEASURES

General advice : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

Inhalation : Remove to fresh air.
 If breathing is irregular or stopped, administer artificial respiration.
 Keep patient warm and at rest.
 Call a physician or Poison Control Centre immediately.

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- Eye contact** : Rinse immediately with plenty of water, also under the eyelids,
for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this
container or label.
Do NOT induce vomiting.
- Medical advice** : There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
Water spray
- Extinguishing media which must not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
- Special protective equipment for fire-fighters** : In the event of fire, wear self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
Avoid dust formation.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

disposal according to local regulations (see section 13).
Do not create a powder cloud by using a brush or compressed air.
Clean contaminated surface thoroughly.

Additional advice : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

Advice on safe handling : Potential for spontaneous combustion.
To avoid thermal decomposition, do not overheat.
Avoid contact with skin and eyes.
When using, do not eat, drink or smoke.
For personal protection see section 8.

STORAGE

Requirements for storage areas and containers : This material can be thermally unstable at elevated temperatures. The material is thermally stable at normal ambient temperatures. It is good practice to store the material away from sources of heat such as steam pipes, radiators or heaters.
Keep tightly closed in a dry and cool place.
Keep out of the reach of children.
Do not bulk-up in silos, storage bins or hoppers without considering the potential product degradation/decomposition problem. Further advice is available from Syngenta.

Storage temperature : < 35 °C

Other data : Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
mancozeb	1 mg/m ³	8 h TWA	SUPPLIER
metalaxyl-M	10 mg/m ³	8 h TWA	SYNGENTA

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne dust is generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : No personal respiratory protective equipment normally required. A particulate filter respirator may be necessary until effective technical measures are installed.
- Hand protection** : Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be changed when breakthrough is suspected. Suitable material
Nitrile rubber
- Eye protection** : Eye protection is not usually required. Follow any site specific eye protection policies.
- Skin and body protection** : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.) Wear as appropriate:
Dust impervious protective suit

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: granules
Colour	: light yellow to light brown
Odour	: weak
pH	: 5 - 9 at 1 % w/v
Flammability (solid, gas)	: not highly flammable
Dust explosion class	: Forms flammable dust clouds.
Minimum ignition energy	: 0.001 - 2 J
Oxidizing properties	: not oxidizing
Explosive properties	: Not explosive
Bulk density	: 0.45 - 0.65 g/cm ³
Miscibility	: Miscible
Surface tension	: 57.8 mN/m at 20 °C

10. STABILITY AND REACTIVITY

Hazardous decomposition products	: Combustion or thermal decomposition will evolve toxic and irritant vapors.
Hazardous reactions	: None known. Hazardous polymerization does not occur. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 Rat, > 2,000 mg/kg
Acute inhalation toxicity	: man, Irritating to respiratory system. Derived from active ingredient(s)
Acute dermal toxicity	: LD50 Rat, > 2,000 mg/kg
Skin irritation	: Rabbit: Non-Irritating
Eye irritation	: Rabbit: Non-Irritating
Sensitization	: guinea pig: Sensitizing

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)**

- Bioaccumulation** : Metalaxyl-M has low potential for bioaccumulation
- Stability in water** : Metalaxyl-M is not persistent in water
Mancozeb is not persistent in water
- Stability in soil** : Metalaxyl-M is not persistent in soil.
Mancozeb is not persistent in soil.
- Mobility** : Metalaxyl-M has a range from low to very high mobility in soil depending on soil type.
Mancozeb has low mobility in soil.

ECOTOXICITY EFFECTS

- Toxicity to fish** : LC50 Oncorhynchus mykiss (rainbow trout), ca. 0.54 mg/l , 96 h
Based on test results obtained with similar product.
- Toxicity to aquatic invertebrates** : EC50 Daphnia magna Straus, ca. 1.2 mg/l , 48 h
Based on test results obtained with similar product.
- Toxicity to algae** : ErC50 Selenastrum capricornutum (green algae), ca. 0.99 mg/l , 72 h
Based on test results obtained with similar product.

13. DISPOSAL CONSIDERATIONS

- Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging** : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken for local recycling or waste disposal.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

Land transport*ADR/ RID:*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(MANCOZEB)

Sea transport*IMDG:*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(MANCOZEB)

Marine pollutant : Marine pollutant

Air transport*IATA-DGR*

UN-No.: 3077
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(MANCOZEB)

15. REGULATORY INFORMATION**Labelling according to EC Directives**

Hazardous components which must be listed on the label:

- mancozeb

Symbol(s) : N Dangerous for the environment
Xi Irritant

R-phrases(s) : R37 Irritating to respiratory system.
R43 May cause sensitization by skin contact.

RIDOMIL GOLD

Version 12

Revision Date 29.06.2006

Print Date 29.06.2006

	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	: S 2 S13 S20/21 S35 S36/37 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves. Use appropriate container to avoid environmental contamination.
Special labelling of certain preparations	: To avoid risks to man and the environment, comply with the instructions for use.	
Note	: The preparation is classified as dangerous in accordance with Directive 1999/45/EC.	

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.
R37	Irritating to respiratory system.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

A vertical bar in the left margin indicates an amendment from the previous version.

Product names are a trademark or registered trademark of a Syngenta Group Company.