

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	<b>RIDOMIL® GOLD Plus Systemic Fungicide</b>
<b>Other Names:</b>	<b>Proper Shipping Name:</b> Copper-based Pesticides, Solid, Toxic (Copper Hydroxide) <b>Applicable only for marine and air transport</b>
	<b>Product code:</b> A9601B
<b>Recommended Use:</b>	Fungicide for the control of various fungal disease on Brassica Vegetables, Cucumbers, Leeks, Grapevines, Macadamias, Potatoes, Radish, Swede, Spring Onions, Turnip and Ornamentals-
<b>Company Details:</b>	<b>Syngenta Crop Protection Pty Limited</b> ABN 33 002 933 717
<b>Address:</b>	<b>Level 1, 2-4 Lyonpark Road</b> <b>MACQUARIE PARK NSW 2113</b> <b>AUSTRALIA</b>
<b>Telephone Number:</b>	<b>(02) 8876 8444</b>
<b>Emergency Telephone Number:</b>	<b>24 hours - 1800 033 111</b>

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard Classification:</b>	Classified as a hazardous chemical according to the Australian criteria for the classification of chemicals
<b>Risk Phrases:</b>	R 20/22 Harmful by inhalation and if swallowed R41 Risk of serious damage to eyes R38 Irritating to skin
<b>Safety Phrases:</b>	—

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE		
<b>Chemical Identity of Pure Substance:</b>	Metalaxyl-M	Copper hydroxide
<b>Synonym:</b>	CGA329351, Mefenoxam	-
<b>CAS Number:</b>	70630-17-0	

MIXTURE		
Chemical Identity of Ingredients	CAS No	Proportion (% w/w)
Metalaxyl-M	70630-17-0	5
Copper hydroxide	20427-59-2	60
Silica	7631-86-9	10 - <30
Diatomaceous earth	61790-53-2	<10
Other ingredients determined not to be hazardous	-	to 100

## Section 4: FIRST AID MEASURES

<p><b>Description of Necessary First Aid Measures:</b></p>	<p>In case of poisoning by any exposure route get to a doctor or hospital quickly. Phone Poisons Information Centre on 131 126. Have the product label or SDS with you when calling or going for treatment.</p> <p><b>Ingestion:</b> If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.</p> <p><b>Eye contact:</b> Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.</p> <p><b>Skin contact:</b> 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.</p> <p><b>Inhalation:</b> Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison Information Centre immediately.</p>
<p><b>Poisoning Symptoms:</b> <b>Medical Advice:</b></p>	<p>Poisoning symptoms in laboratory animals were non-specific. There is no specific antidote available. Treat symptomatically.</p>

## Section 5: FIRE FIGHTING MEASURES

<p><b>Suitable Extinguishing Media:</b></p>	<p><i>Extinguishing media - small fires</i> Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide extinguisher. DO NOT use direct jet of water.</p> <p><i>Extinguishing media - large fires</i> Use alcohol-resistant foam or water spray. DO NOT use direct jet of water.</p>
<p><b>Hazards from Combustion Products:</b></p>	<p>This product contains combustible organic components that may burn and decompose during a fire producing dense black smoke containing hazardous products of combustion. Combustion products are toxic and /or irritant. Exposure to decomposition products may be a hazard to health.</p>
<p><b>Special Protective Precautions and Equipment for Fire Fighters:</b></p>	<p>When fighting a major fire wear self-contained breathing apparatus and protective equipment.</p>
<p><b>Hazchem Code:</b></p>	<p>2X</p>

## Section 6: ACCIDENTAL RELEASE MEASURES

<p><b>Emergency Procedures:</b></p>	<p>In case of spillage it is important to take all steps necessary to</p> <ul style="list-style-type: none"> <li>• Avoid eye and skin contact</li> <li>• Avoid contamination of waterways</li> </ul>
-------------------------------------	--

<b>Methods and Materials for Containment and Clean Up:</b>	<p><b>Procedure for spill</b></p> <ol style="list-style-type: none"> <li>(1) Keep all bystanders away</li> <li>(2) Wear full length clothing and PVC gloves</li> <li>(3) Reposition any leaking containers so as to minimise leakage</li> <li>(4) Sweep spilt material into a pile</li> <li>(5) Shovel into drums</li> <li>(6) Disposal of the material will depend upon the extent of the spill             <ul style="list-style-type: none"> <li>• For quantities up to 50 kg of product bury in a secure landfill site</li> <li>• For quantities greater than 50 kg seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established</li> </ul> </li> <li>(7) Decontaminate spill area with detergent and water and rinse with the smallest volume of water practicable</li> </ol>
--	--

## Section 7: HANDLING AND STORAGE

<b>Precautions for Safe Handling:</b>	<p>Harmful if inhaled or swallowed. Will damage eyes. May irritate the skin. Avoid contact with eyes and skin. DO NOT inhale dust. When using the prepared spray, wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist (or equivalent clothing),</li> <li>• elbow-length PVC gloves and</li> <li>• face shield or goggles.</li> </ul> <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing</p>
<b>Conditions for Safe Storage:</b>	<p>Store in the closed, original container in a dry, well-ventilated area as cool as possible out of direct sunlight</p>

## Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

	<i>Component</i>	<i>Exposure limit</i>	<i>Value type</i>
<b>National Exposure Standards:</b>	Silica (amorphous)	10 mg/m <sup>3</sup>	TWA
<b>Syngenta Exposure Standards:</b>	Metalaxyl-M	10 mg/m <sup>3</sup>	TWA
<b>Biological Limit Values:</b>	No biological limits allocated		
<b>Engineering Controls:</b>	No special requirements. Product is used outdoors.		
<b>Personal Protective Equipment:</b>	<p>Harmful if inhaled or swallowed. Will damage eyes. May irritate the skin. Avoid contact with eyes and skin. DO NOT inhale dust. When using the prepared spray, wear:</p> <ul style="list-style-type: none"> <li>• cotton overalls buttoned to the neck and wrist (or equivalent clothing),</li> <li>• elbow-length PVC gloves and</li> <li>• face shield or goggles.</li> </ul> <p>If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, face shield or goggles and contaminated clothing</p>		

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Blue powder	<b>Boiling Point/Range:</b>	Not available
<b>Odour:</b>	Clay-like	<b>Freezing/Melting Point:</b>	Not available
<b>pH:</b>	8 - 10 (1% w/v water)	<b>Solubility in water:</b>	Metalaxyl-M: 5 mg/L
<b>Vapour Pressure:</b>	Metalaxyl-M (25°C): 2.5 x 10 <sup>-5</sup> mmHg	<b>Specific Gravity or Density:</b>	0.378 g/cm <sup>3</sup>
<b>Vapour Density:</b>	Not available		

<b>Flash Point:</b>	Not applicable	<b>Explosive Properties:</b>	Not explosive
<b>Upper and Lower Flammable (Explosive) Limits in Air:</b>	Not highly flammable	<b>Oxidising Properties:</b>	Not oxidising
<b>Ignition Temperature:</b>	Not available	<b>Combustibility:</b>	Not applicable
		<b>Corrosiveness:</b>	Not corrosive

## Section 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under standard conditions.
<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	None known.
<b>Hazardous Decomposition Products:</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours
<b>Hazardous Reactions:</b>	None known. Hazardous polymerization does not occur.

## Section 11: TOXICOLOGICAL INFORMATION

<b>Health Effects from Likely Routes of Exposure:</b>		
<b>Acute:</b>	<b>Oral toxicity:</b>	<b>HARMFUL</b> Tests on rats indicate this product is harmful following single doses of undiluted product. (LD <sub>50</sub> = 550 mg/kg)
	<b>Dermal toxicity:</b>	<b>LOW TOXICITY</b> Tests on rabbits indicate this product has a low toxicity following skin contact with undiluted product. (LD <sub>50</sub> >2000 mg/kg)
	<b>Inhalation:</b>	<b>HARMFUL</b> Tests on rats indicate this product is harmful due to inhalation of undiluted product. (LC <sub>50</sub> (4h) = 1.73 mg/L air)
	<b>Skin irritation:</b>	<b>SLIGHT IRRITANT</b>
	<b>Eye irritation:</b>	<b>SEVERE IRRITANT</b>
	<b>Sensitisation:</b>	<b>NOT A SENSITISER</b>

**Chronic:** **Metalaxyl-M**, either as technical grade Metalaxyl-M or as a 50% component of technical grade metalaxyl, has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained.

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

## Section 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	<i>Toxicity to fish:</i>	<b>Very highly toxic to fish</b> <i>Oncorhynchus mykiss</i> (rainbow trout): LC <sub>50</sub> = 23 µg/L (based on studies with copper hydroxide)
	<i>Toxicity to daphnia and other aquatic invertebrates:</i>	<b>Very highly toxic to aquatic invertebrates</b> <i>Daphnia magna</i> (Water flea): EC <sub>50</sub> = 6.5 µg/L (based on studies with copper hydroxide)
<b>Persistence and Degradability:</b>	Metalaxyl-M is not persistent in water and soil	
<b>Mobility</b>	Metalaxyl-M and copper hydroxide have a range from low to very high mobility in soil depending on soil type.	
<b>Environmental Fate (Exposure):</b>	Incorporated into organic molecules	
<b>Bioaccumulative Potential:</b>	Metalaxyl-M has low potential for bioaccumulation	

## Section 13: DISPOSAL CONSIDERATIONS

<b>Disposal Methods and Containers:</b>	Single rinse foil pack before disposal. Add rinsings to the spray tank. DO NOT dispose of undiluted chemicals on-site. Puncture and bury the container to prevent reuse. Dispose of in a local authority landfill site. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.
<b>Special Precautions for Landfill or Incineration:</b>	Not applicable

## Section 14: TRANSPORT INFORMATION

<b>LAND TRANSPORT</b> ADG			
<b>UN Number:</b>	2775	<b>Packing Group:</b>	III
<b>UN Proper Shipping Name:</b>	Copper-based Pesticides, Solid, Toxic (Copper Hydroxide)	<b>Special Precautions for User:</b>	None allocated
<b>Class:</b>	6.1	<b>Hazchem Code:</b>	2X
<b>Subsidiary Risk:</b>	None allocated		

<b>SEA TRANSPORT</b> IMDG			
<b>UN Number:</b>	2775	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Copper-based Pesticides, Solid, Toxic (Copper Hydroxide)	<b>Packing Group:</b>	III
<b>Class:</b>	6.1	<b>Marine Pollutant:</b>	Marine pollutant

<b>AIR TRANSPORT</b> IATA - DGR			
<b>UN Number:</b>	2775	<b>Subsidiary Risk:</b>	None allocated
<b>UN Proper Shipping Name:</b>	Copper-based Pesticides, Solid, Toxic (Copper Hydroxide)	<b>Packing Group:</b>	III
<b>Class:</b>	6.1		

### Section 15: REGULATORY INFORMATION

<b>APVMA Product Number:</b>	51498
<b>Poisons Schedule (SUSDP):</b>	6

### Section 16: OTHER INFORMATION

<b>Date of preparation or last revision:</b> May 2010
<b>Source of Data:</b> The information provided in this SDS is sourced from Syngenta internal studies which have been conducted according to Regulatory requirements including OECD and CIPAC Guidelines and EC Directives. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.
<b>Note:</b> This product is a registered agricultural chemical and must, therefore, be used in accordance with the container label directions
<b>CONTACT POINT:</b> Regulatory Affairs Manager, Syngenta Crop Protection Pty Limited (02) 8876 8444 <b>24 HOURS EMERGENCY CONTACT: 1800 033 111</b>
This Material Safety Data Sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

® Registered trademark of a Syngenta Group Company