

MATERIAL SAFETY DATA SHEET

STATEMENT OF HAZARDOUS NATURE:

Not hazardous according to the criteria of NOHSC

COMPANY DETAILS:

Syngenta Crop Protection Pty Limited
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Level 1, 2-4 Lyon Park Road
NORTH RYDE, NSW 2113

Telephone No.: (02) 8876 8444
24 Hours Emergency No.: 1 800 033 111

IDENTIFICATION

PRODUCT NAME: DIVIDEND® Fungicide Seed Treatment

Formulation type:	Suspension concentrate for seed treatment	UN Number (ADG):	None allocated
Active Ingredients:	- difenoconazole - metalaxyl-M	Dangerous Goods Class/ and Subsidiary Risk:	None allocated
Product Code No.:	A-12532 C	Hazchem Code:	None allocated
Chemical types	- triazole derivative - phenylamide	Packing Group:	None allocated
		Poisons Schedule:	5

USE: Fungicide seed treatment for the control of seedling diseases in barley and wheat.

PHYSICAL DESCRIPTION/PROPERTIES:

Appearance:	Red liquid	Flash point:	>104°C
Odour:	Sweetish, chalky odour	Flammability:	Non-flammable
Volatility:	not available	Behaviour in water:	Disperses

OTHER PROPERTIES:

Specific gravity:	1.19 g/mL	Explosive properties	Not explosive.
pH (1% in water at 25°C):	6.5–8.5	Auto-ignition temp.:	435°C
Boiling point:	>90°C	Combustibility:	Not combustible
Oxidising properties::	Not an oxidiser	Corrosiveness:	Non-corrosive

INGREDIENTS:

	CAS No.	Content (%w/v)
difenoconazole (technical grade)		>92
to give difenoconazole	119446-68-3	92
metalaxyl-M (technical grade)		>23
to give metalaxyl-M	70630-17-0	23
ethylene glycol	107-21-1	<2
glycerine	56-81-5	10 - <30
talc	14807-96-6	10 - <20
other ingredients determined not to be hazardous		to 100

HEALTH HAZARD INFORMATION

HEALTH EFFECTS

ACUTE

Toxicity - This product is unlikely to present a toxicity hazard during normal use (WHO Hazard Class III)

Swallowed: **LOW TOXICITY**
Tests on rats indicate a low toxicity following single doses of undiluted product.
(LD₅₀ >5,050 mg/kg)

Dermal absorption: **LOW TOXICITY**
Tests on rabbits indicate a low toxicity due to dermal contact with undiluted product.
(LD₅₀ >5,050 mg/kg)

Inhaled: **LOW TOXICITY**
 Tests on rats indicate a low toxicity due to inhalation of the undiluted product.
 (LC₅₀ (4 h) >2.73 mg/L air)

Irritation (based on studies with rabbits using undiluted product)

Eye: **SLIGHT IRRITANT**
 Skin: **NON IRRITANT**

Sensitisation (based on studies with guinea pigs)

Skin: **NOT A SENSITISER**

Poisoning symptoms:

No case of human poisoning due to this product is on record. The poisoning symptoms observed for laboratory mammals were non-specific.

CHRONIC (Active Ingredients)

Difenoconazole technical has been extensively tested on mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. Chronic 2-year feeding studies revealed no compound-related tumourigenic effects in rats, whereas in mice high doses were associated with an increased incidence of liver tumours.

The absence of mutagenic effects and the pronounced restriction of tumour appearance to one organ and one species suggests an underlying promotion process which is frequently seen in mice and which is considered to have no bearing in humans.

Repeated high doses of difenoconazole technical were associated with cataracts in dogs and hens. Studies on other species and a subsequent dog study did not confirm this effect. Other effects at high doses included liver toxicity and adverse effects on blood cells and platelets.

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.

FIRST AID

In case of poisoning by any exposure route contact a doctor or Poisons Information Centre. Phone 131 126.

Swallowed: If swallowed, **DO NOT** induce vomiting. Give a glass of water and contact a doctor or Poisons Information Centre.
 Eye: Flush with large quantities of clean tap water for at least 15 minutes.
 Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water.
 Inhaled: Move affected person to fresh air and keep at rest until recovered.

ADVICE TO DOCTOR

No specific antidote exists. Treat symptomatically.

PRECAUTIONS FOR USE

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS

The following exposure standards have been set by NOHSC for some components in this product:

Component	TWA	
	ppm	mg/m ³
ethylene glycol (vapour)	-	60
glycerine (as mist)	-	10
talc	-	2.5
TWA = The time weighted average airborne concentrations over an eight-hour working day, for a five-day working week over an entire working life.		

These exposure standards are unlikely to be exceeded under normal use conditions of this product. No exposure standards have been assigned for difenoconazole, metalaxyl-M or any of the other ingredients.

Exposure Potential - Swallowing is unlikely under normal conditions of usage. Significant skin uptake does not occur. Inhalation is an unlikely route of exposure as the product is applied as a seed treatment.

ENGINEERING CONTROLS

No special requirements. Product is used in enclosed application systems or in application equipment used outdoors.

PERSONAL PROTECTION

May irritate the eyes. Avoid contact with eyes.

When opening the container, preparing slurry and using the prepared slurry, wear:

- cotton overalls buttoned to the neck and wrist (or equivalent clothing) and
- elbow-length PVC gloves.

Wash hands after use. After each day's use, wash gloves and contaminated clothing.

FLAMMABILITY

This product is NON-FLAMMABLE.

SAFE HANDLING INFORMATION**STORAGE AND TRANSPORT**

Store in tightly sealed original containers in a dry secure place away from fertilisers, seed, feed and food. Store out of direct sunlight in a well ventilated area. Keep out of reach of children, unauthorised persons and animals.

SPILLS AND DISPOSAL

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways

Procedure for spill:

- (1) Keep all bystanders away.
- (2) Wear full-length clothing and butyl rubber gloves.
- (2) Wear goggles, full length clothing and PVC gloves.
- (3) Reposition any leaking containers so as to minimise further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
 - For quantities up to 50L of product bury in a secure landfill site.
 - For quantities greater than 50L seek advice (use emergency contact number below) from the manufacturer before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

Dispose of empty, used containers by:

- (a) Triple rinsing or preferably pressure rinsing containers with water. Add the rinsings to the spray tank. DO NOT dispose of undiluted chemicals on site.
- (b) If recycling, replace cap and return clean containers to recycler or designated collection point.
- (c) If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. 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.

FIRE/EXPLOSION HAZARD

This product is non-flammable and non-explosive. Product is combustible. Extinguish warehouse and factory fires using fine-water spray or foam. During a fire this product may release smoke and hazardous decomposition products. When fighting a major fire wear an air-supplied respirator. Do not allow fire-water to enter drains.

OTHER INFORMATION

Metalaxyl-M technical is practically non-toxic to fish, birds and bees.

Difenoconazole technical is practically non-toxic to birds and bees and highly toxic to fish [LC₅₀ (96 h), rainbow trout = 0.81 mg/L] and algae.

DO NOT contaminate streams, rivers or waterways with the product or used containers.

Note: This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Federal health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT: Regulatory Affairs Manager - Crop Protection - (02) 8876 8444 24 HOURS EMERGENCY CONTACT: 1 800 033 111

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 MSDS 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.