

MATERIAL SAFETY DATA SHEET

COMPANY DETAILS:

Syngenta Crop Protection Limited
Tower II, Level 7, 110 Symonds Street
Private Bag 92618,
Symonds Street
AUCKLAND
NEW ZEALAND

Telephone No.: (weekdays) 09 - 306 1500
National Poisons & Hazchem
Information Centre : 0800 POISON
(0800 764 766)
Emergency No. (24 Hours) 0800 734 607

IDENTIFICATION

PRODUCT NAME: MAXIM⁰

Formulation type:	Suspension concentrate	Dangerous Goods Class/ subsidiary risk:	9
Active Ingredients:	fludioxonil	Hazchem Code:	2X
Product Code No.:	A-8348 B	Packaging Group:	III
Chemical types	phenyl pyrrole	Toxic Substances Schedule:	Not scheduled
UN Number:	3082	Marine pollutant	Yes

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S
(CONTAINS FLUDIOXONIL 10%) MARINE POLLUTANT

USE: Tuber seed treatment for the control of seed borne Rhizoctonia (Black scurf) and Silver scurf (*Helminthosporium solani*) in potatoes.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Light red to dark red liquid	Flash point:	>100°C
Odour:	Weak, like varnish	Flammability:	Non-flammable
Volatility (fludioxonil):	Henry's law constant (25°C): 5.4 x 10 ⁻⁵ Pa.m ³ /mol	Behaviour in water:	Disperses

OTHER PROPERTIES

Specific gravity:	1.02 - 1.08 (20°C)	pH (1% in deion. water):	6 - 9
Surface tension:	42.7 - 43.4 mN/m (filtrates of 0.1 g/L suspensions)	Boiling point:	~100°C
Explosive properties	Not explosive.	Auto-ignition temp.:	460°C
Corrosiveness:	Non-corrosive	Combustibility:	Not combustible
		Viscosity:	dynamic

INGREDIENTS

	CAS No.	Content (%w/v)
fludioxonil (technical grade)		>10
to give fludioxonil	[57837-19-1]	10
polyarylphenolphosphate ethoxylate		<10
tristyrylphenol, 16 moles ethylene oxide		<10
formaldehyde	[50-00-0]	<1
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 using a similar formulation containing identical ingredients indicate a low toxicity following single doses of undiluted product.

(LD₅₀ > 3000 mg/kg)

Dermal absorption: **LOW TOXICITY**
Tests on rats using a similar formulation containing identical ingredients indicate a low toxicity due to dermal contact with undiluted product.
(LD₅₀ >4000 mg/kg)

Inhaled: **LOW TOXICITY**
Tests on rats using a similar formulation containing identical ingredients indicate a low toxicity due to inhalation of undiluted product.
(LC₅₀ (4 h) >3.1 mg/L, highest attainable concentration)

Irritation (based on studies with rabbits using undiluted product)-

Eye: **NON IRRITANT**

Skin: **NON IRRITANT**

Sensitisation

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 and transient only. The same can be expected for humans.

CHRONIC (Active Ingredients)

Fludioxonil technical has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, carcinogenic, teratogenic or reproductive effects was obtained.

FIRST AID

In case of poisoning by any exposure route contact a doctor or National Poisons & Hazchem Information Centre.

Swallowed: If poisoning occurs contact a doctor or Poisons Information Centre. If swallowed DO NOT induce vomiting. Begin artificial respiration if victim is not breathing. Use mouth to nose rather than mouth to mouth.

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. Since excretion of fludioxonil via the bile is significant, the application of medical charcoal in a large quantity of water and a laxative may be indicated even in cases when considerable time has elapsed since ingestion.

PRECAUTIONS FOR USE

ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS

EXPOSURE STANDARDS

The following exposure standards have been set for **formaldehyde**:

Substance	Time-weighted average (TWA)		Short term exposure limit (STEL)		Carcinogen category
	ppm	mg/m ³	ppm	mg/m ³	
Formaldehyde	1	1.3	2	2.5	2

The content of formaldehyde in this product is less than 1%. Under normal usage of this product, the relevant exposure limits will not be exceeded.

No exposure standards have been set for the other components of this product.

Exposure Potential - Swallowing is unlikely under normal conditions of usage. Skin uptake is possible route of exposure. Inhalation is an unlikely route of exposure as the product is applied as a seed treatment.

ENGINEERING CONTROLS

No special requirements.

PERSONAL PROTECTION Avoid contact with eyes and skin. When preparing and using the prepared spray wear elbow-length PVC gloves. After use and before eating drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves.

FLAMMABILITY

This product is NON-FLAMMABLE.

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

Store in closed original container in a cool, well ventilated area as cool as possible. Do not store for prolonged periods in direct sunlight. 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 goggles, half face-piece respirator with combined dust and vapour cartridge, 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 water

Dispose of empty, used containers by:

- (a) Triple rinse or preferably pressure rinse 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.
- (d) Burning of empty containers if circumstances, especially wind direction, permit is an alternative disposal method.

FIRE/EXPLOSION HAZARD

Maxim is non-flammable and non-explosive. This product is a suspension in water. During a fire, after the water content has vaporised the remaining material is combustible and this product may release smoke and hazardous decomposition products. Extinguish warehouse and factory fires using fine-water spray or foam. When fighting a major fire wear an air-supplied respirator. Do not allow fire-water to enter drains.

OTHER INFORMATION

Fludioxonil technical is harmful to fish and other aquatic organisms and toxic to algae. It is practically non-toxic to mammals, birds, bees and earthworms.

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 Government health authorities and has been evaluated by expert toxicologists and environmental scientists.

CONTACT POINT:	Business Manager - Crop Protection	(09) 306 1500
	24 HOURS EMERGENCY CONTACT:	0800 734 607

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.

ò Registered Trade Mark of a Syngenta Group Company.