

SAFETY DATA SHEET

NAUTILE

Date of Issue: 14th February 2008

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): Mancozeb
cymoxanil

Recommended use: Fungicide for use on Potatoes, Onions, Garlic and Potatoes

Supplier: Elliott Technologies Limited
45 Kitchener Road
Pukekohe
Phone 0800 100 325

Emergency telephone number: 0800 Poison (0800 764 766) 24 Hours

2. HAZARDS IDENTIFICATION

Hazard Classification: 6.5B, 6.9B, 9.1A

Required identification Details: Respiratory Sensitizer
Target Organ Toxin
Aquatic Ecotoxin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
MANCOZEB	8018-01-7	68 %
CYMOXANIL	57966-95-7	5 %

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Effects and symptoms

First-aid measures

Inhalation: Move to fresh air.

Ingestion: In case of problems consult a doctor.

Skin contact: Wash immediately and abundantly with soap and water.

Eye contact: Wash immediately and abundantly with water.

Notes to a physician: Treat symptomatically, no specific antidote.

5. FIRE-FIGHTING MEASURES

HAZCHEM Code: 2XE

Extinguishing media :	Foam, Dry chemicals, Carbon dioxide
Hazardous thermal (de)composition products:	Thermal decomposition giving flammable and toxic products. Carbon disulphide Hydrogen sulphide Hydrogen cyanide (hydrocyanic acid) Oxides of sulphur Nitrogen oxides Carbon oxides
Protection of fire-fighters:	Use a self contained respiratory apparatus and protective clothes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Evacuate non-essential staff and those not equipped with individual protection apparatus. Avoid contact with skin and eyes. Wear appropriate protective clothing and gloves.
Environmental precautions:	Stop any eventual leakage. Do not release into sewers or natural water.
Methods for cleaning up:	Recover the product by sweeping up or vacuuming without raising dust.

7. HANDLING AND STORAGE

Handling:	Provide appropriate exhaust and ventilation at machinery and at places where dust can be generated. Provide showers, eye-baths. HANDLING Do not generate dust by mechanical effects. Use no hooks.
Storage:	STORAGE Keep only in the original container. Keep container tightly closed. Keep in a dry place. Keep away from heat. Do not pile up more than 3 pallets.
Packaging materials:	Bag with polyethylene inner liner of minimum 75 µm thickness.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace Exposure Guidelines

Workplace exposure standards:	Exposure limits Mean exposure limit value of dusts = 10 mg/m ³
Application in the workplace:	Provide sufficient air exchange and exhaust in work areas.
Exposure Standards outside:	Exposure limits Mean exposure limit value of dusts = 10 mg/m ³

The workplace:

Personal Protective Equipment

Detail specifications for equipment:	
Respiratory system:	Respiratory protection Wear a suitable anti dust mask
Skin and body:	Wear suitable protective clothing and gloves.
Eyes:	Wear eye and face protection.
General hygiene:	When using do not eat, drink or smoke. Change clothes when contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	AT 20°C Solid	Microgranules
Colour:		Yellow-green
Odour:		Distinctive Odour
pH:		In distilled water 5 - 6.5 (dispersed at 1 %)
Vapour Pressure:		Not applicable
Freezing/melting point:		Not applicable
Solubility in solvents:		Sparingly soluble in most organic solvents.
Solubility in water:		Dispersable
Specific gravity or density:		Bulk Density: 700 kg/m ³
Flammability:		Not highly flammable (according to A10 test).
Flash Point:		Not applicable
Explosion properties:		According to the chemical structure no explosion reaction is expected.
Oxidation properties:		Non oxidizing (according to A17 test)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal storage conditions
Conditions to avoid:	Elevated temperatures, moisture and oxygen break down the product and induce flammable and toxic gas. INCOMPATIBLE PRODUCTS
Materials to avoid:	Strong oxidizing agents Strong acids Quaternary ammonium salts Sequestering agents
Hazardous decomposition Products:	Thermal decomposition giving flammable and toxic products. Carbon disulphide Hydrogen sulphide Hydrogen cyanide (hydrocyanic acid) Oxides of sulphur Nitrogen oxides Carbon oxides
Hazardous polymerization:	Not subject to polymerization
Hazardous reactions :	None known

11. TOXICOLOGICAL INFORMATION

Acute toxicity – Oral :	LD50/Oral route/rat > 2 000 mg/kg
Acute toxicity - Dermal :	LD50/Dermal route/rat > 2 000 mg/kg
Acute toxicity – Inhalation:	Due to formulation, not considered to be toxic through inhalation.
Skin irritation :	Non irritant
Eye irritation:	Eye-contact Non irritant (rabbit)
Sensitization :	Skin contact Skin sensitizer (guinea-pig)
Chronic toxicity :	
Carcinogenicity:	Not considered to be a carcinogen
Mutagenicity:	Not considered to be a mutagen
Reproduction toxicity:	Not a reproductive toxin
Other information :	

12. ECOLOGICAL INFORMATION

Ecotoxicity	
Fish	Acute toxicity LC50/fish/96 h : 0.41 mg/l
Daphnia magna	EC50/Daphnia/48h 0.85 mg/l
Algae	EC50/alguae/72h : 0.25 mg/l (growth rate)
Bees	Not toxic to bees.
Mobility Soil	Not mobile.
Water	Low risk of underground water contamination.
Persistence/degradability Soil	Not persistent.

13. DISPOSAL CONSIDERATIONS

Methods of disposal :	Sweep up spills and dispose of in an approved landfill subject to Regional Council bylaws. Packaging: Ensure that pack is completely empty. Burn if permitted and conditions, particularly wind direction are favourable.
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14. TRANSPORT INFORMATION

International transport regulations

International transport regulations:	Class 9
UN number:	UN 3077, Packaging Group III
Land - Road/Railway	Class 9
Proper shipping name :	HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANCOZEB), Marine Pollutant.

15. REGULATORY INFORMATION

ACVM Registered Number:	P7752
HSNO Approval Code:	HSR06061

16. OTHER INFORMATION

Additional information:

Disclaimer

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