



SAFETY DATA SHEET

Product Name:

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Reviewed on: day, month, 2006

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product name:	Double Strength Oxfen Hi Mineral
Product code:	A6165
Recommended use:	Anthelmintic drench for the control of sensitive roundworms, lungworm and tapeworm in cattle, sheep, goats and deer. Contains minerals selenium, copper, cobalt, iodine and zinc.
Company details:	Merial Ancare
Address:	Level 3, Merial Building Osterley Way Manukau City New Zealand
Telephone number:	Phone: +64 9 980 1600 Fax: +64 9 980 1601
Emergency telephone number:	Merial Ancare Freephone: 0800 800 822 National Poisons Centre : 0800 764 766 (0800 POISON) Fire Service, Ambulance : Dial 111
Date of preparation:	20 April 2006

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Liquid

Product components:

Name	CAS	Proportion
Oxfendazole	53716-50-0	45.3 g/L
Selenium (as Sodium selenate)	13410-01-0	1 g/L
Copper versenate	14025-15-1	26.4 g/L (4.2 g/L Copper)
Iodine EDDI	5700-49-2	2.5 g/L (2 g/L Iodine)
Disodium cobalt EDTA	15137-09-4	2.7 g/L (0.4 g/L Cobalt) to 1L
Other		

SECTION 3: HAZARDS IDENTIFICATION

Hazard classifications:	6.3B, 6.4A, 6.5B, 6.7B, 6.8B, 6.9B, 9.1B, 9.2C
Priority and secondary identifiers:	WARNING Dangerous to the environment
Risk and safety phrases:	6.3B May cause mild skin irritation. Avoid skin contact. 6.4A May cause eye irritation. Avoid contact with eyes. 6.5B Repeated exposure may cause skin allergy. Avoid skin contact. 6.7B Cobalt possibly may cause cancer. Handle with care. 6.8B Oxfendazole and cobalt possibly may affect development and/or reproduction. Handle with care. 6.9B Oxfendazole possibly may affect the liver and alimentary system. Copper possibly may affect the kidney. Handle with care. 9.1B Toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container. 9.2C Harmful to the soil environment. Avoid release to the environment.

SECTION 4: FIRST AID MEASURES

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Necessary first aid measures:	For advice contact the National Poisons Centre on 0800 POISON (0800 764 766), or a doctor immediately. <u>Ingestion:</u> If swallowed seek medical attention. Do NOT induce vomiting. <u>Eyes:</u> If splashed in eyes wash out immediately and thoroughly with water. <u>Skin:</u> If skin or hair contact occurs remove contaminated clothing and flush skin and hair with running water. <u>Inhalation:</u> Remove to fresh air.
Workplace facilities:	No special facilities required.
Required instructions:	Observe good work practices and avoid skin and eye contact. Wash hands and exposed skin before meals and after use. Do not eat or drink while using. Launder protective clothing separately from other clothing, and before each reuse.
Notes for medical personnel:	Apply symptomatic therapy (no specific antidote). Note the nature of the product.

SECTION 5: FIRE FIGHTING MEASURES

Type of hazard:	Non flammable, Non combustible, Non explosive
Fire hazard properties:	Double Strength Oxfen Hi Mineral is not classified as flammable, and will not support combustion. Hazardous fumes when heated to decomposition.
Regulatory requirements:	Not applicable
Extinguishing media and methods:	Treat the fire as for the other materials present. Do not allow water to enter drains.
Hazchem code:	2X
Recommended protective clothing:	When fighting a major fire wear full protective clothing including breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency procedures:	Wear suitable protective clothing. Restrict access to contaminated area. Contain the spill and prevent further dispersion. Retrieve intact containers from site. Place damaged containers into containment devices. Absorb spills with inert material and place in waste containers. Wash the area with water and absorb with further inert material. Collect spilled material and place in sealable containers for subsequent disposal. Prevent contamination of water courses or sewers. Dispose of waste safely.
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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Apply with well-maintained and calibrated equipment. Handle with care.
Regulatory requirements:	N/A
Handling practices:	N/A
Approved handlers:	Not required
Conditions for safe storage:	Store in a cool place with top secured. Keep out of reach of children.
Store site requirements:	This substance is subject to a requirement for an emergency management plan, containment and signage, whenever it is held in quantities of 1000L or more. See Hazardous Substances

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Packaging:	(Emergency management) regulations 25 to 42. Packaging Schedule 3 (UN Packing Group III) for quantities >5L (Hazardous Substances Packaging Regulations 2001).
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SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Workplace exposure standards:	Selenium compounds, as Se TWA 0.1mg/m ³ Copper fume TWA 0.2mg/m ³ Copper dusts & mists, as Cu TWA 1mg/m ³ Cobalt metal dust and fume, as Co TWA 0.05mg/m ³ Iodine Ceiling TWA 0.1ppm Dusts 10mg/m ³
Application in the workplace:	Prevent exposure by using engineering controls, personal protective equipment and work practices that prevent skin contact.
Exposure standards outside the workplace:	EEL: Copper (Cu ²⁺) 0.0013mg/L water
Engineering controls:	Ensure that ventilation maintains dust levels below WES.
Personal protection:	Clothing should consist of overalls with long sleeves, including eye protection and impervious gloves. Eye protection is advised (eg. goggles or face shield).
References:	N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specify product data:	<u>Formulation type:</u> Suspension <u>Appearance:</u> Blue liquid <u>Specific gravity:</u> 1.0-1.1 g/mL <u>pH:</u> 4-5 <u>Boiling point:</u> ca. 100° C. <u>Vapour Pressure:</u> NA <u>Solubility in Water:</u> Oxfendazole is insoluble
Required specifications:	N/A
Further specifications:	N/A
Specific advice:	N/A

SECTION 10: STABILITY AND REACTIVITY

Stability of the substance:	Stable under normal conditions of use and storage.
Conditions to avoid:	No specific conditions to avoid.
Material to avoid:	No specific materials to avoid.
Hazardous decomposition products:	No hazardous products are expected, except when heated to decomposition.
Hazardous polymerization:	Components are not expected to form hazardous polymers.
Specific data:	N/A

SECTION 11: TOXICOLOGICAL INFORMATION

Data and interpretation:	May cause mild skin irritation. May cause eye irritation. Repeated exposure may cause skin allergy. Danger of serious damage to health by prolonged exposure if swallowed. Cobalt possibly may cause cancer. Oxfendazole and cobalt possibly may affect development and/or reproduction. Oxfendazole possibly may
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Summaries data:

affect the liver and alimentary system. Copper possibly may affect the kidney.

Oxfendazole: Oxfendazole has low acute oral toxicity [LD₅₀ (oral) > 6400mg/kg]. In repeated oral dose studies hepatocellular lipid vacuolation was identified as an early toxic effect (lowest NOEL was 0.7 mg/kg/day). Teratogenicity and foetal toxicity has been demonstrated in laboratory animal studies (lowest NOEL was 0.9mg/kg/day).

Sodium selenate: Sodium selenate is acutely toxic [LD₅₀ (oral) 25mg/kg]. Dusts are toxic if inhaled and irritant to eyes. Acute poisoning exhibits as dyspnea, spasms and death from respiratory failure. Selenium poisoning in humans has been described and gastrointestinal and neurological symptoms predominated. Potential mutagen. Repeated dose testing in laboratory species identified a lowest NOAEL of 0.37mg/kg/day (liver toxicity).

Copper versenate: Low to moderate acute toxicity. Copper may induce allergic contact dermatitis in susceptible individuals and is an eye and skin irritant. Repeated oral dose chronic studies reported reduced growth rates, liver and kidney effects and microcytic anaemic in laboratory species.

Disodium cobalt EDTA: Cobalt and cobalt compounds are possible carcinogens. Cobalt salts have been implicated in cardiac disease (LOAEL 0.02mg/kg/d). Cobalt metal dust caused pulmonary toxicity when inhaled (LOAEL 0.02mg/L/d). Cobalt is a known skin and respiratory sensitiser. Cobalt metal fume and dust irritates the respiratory tract. Cobalt metal is irritant to eyes and skin. In a reproductive study in rats, cobalt was embryotoxic when fed at 0.05mg/kg/d throughout the gestation (decreased foetal weight).

Iodine EDDI: An acute oral toxin (doses of 2-3g iodine have been fatal). Iodine salts are eye, skin and mucous membrane irritants. Skin sensitiser. Chronic ingestion of large amounts of iodine (200 mg/day) results in thyroid disease.

SECTION 12: ENVIRONMENTAL INFORMATION

Potential environmental interactions:

Toxic to aquatic organisms. Harmful to the soil environment.

Data organisation :

Oxfendazole: Benzimidazoles are not toxic to birds or honey bees, but are moderately toxic to aquatic life [LC₅₀ *Daphnia magna* 0.52mg/L (48hrs)]. The potential for bioaccumulation is low and benzimidazoles are degraded in soil and probably also in water.

Sodium selenate: Very toxic to fish [LC₅₀ (96hr, Flathead minnow) 690ug/L], to crustacea [LC₅₀ (48hr, *Grammarus pseudolimnaeus*) 83ug/L] and algae [EC₅₀ (96hr, green algae) 0.2mg/L]. Toxic to plants [EC20 (22d) 0.1mg/kg soil]. Toxic to terrestrial vertebrates based on an acute oral LD₅₀(rats) of 25 mg/kg. Selenium is bioaccumulative and persists.

Copper versenate: Toxic to aquatic species (no data, 9.1D).

Disodium cobalt EDTA: Cobalt is toxic to fish and other aquatic life [LC₅₀ (96hr, Trout) 1.406mg/L; EC₅₀ (48hr, *Daphnia magna*) 1.11mg/L]. Not readily biodegradable, cobalt persists.

Iodine EDDI: Very toxic to aquatic organisms [LC₅₀ (96hr, Rainbow trout) 530ug/L; EC₅₀ (48hr, *Daphnia magna*) 160ug/L]. Toxic to terrestrial vertebrates based on an acute oral LD₅₀ (rat) of 960mg/kg. Potentially a terrestrial vertebrate toxin based on acute toxicity data.

Environmental risk and

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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safety phrases: (Selenium 0.1%)

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal information :

Preferably dispose of the product by use. Otherwise dispose of product and packaging at an approved landfill or other approved facility. Avoid contamination of any water source. Burn empty container in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill. Do NOT use container for any other purpose.

SECTION 14: TRANSPORT INFORMATION

Relevant information:

Dangerous Goods for transport.
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Selenium 0.1%)
UN Number: 3082
Dangerous Goods Class: 9

Other requirements:

The maximum quantity per package of this substance allowed for carriage on public transport is 1L.
N/A

SECTION 15: REGULATORY INFORMATION

Regulatory status:

Registered pursuant to the ACVM Act 1997, No. A6165
See www.nzfsa.govt.nz/acvm for registration conditions

Approved pursuant to the HSNO Act, Approval Code HSR001898
See www.ermanz.govt.nz for approval conditions

SDS is required for quantities greater than or equal to 1L

HSNO and ACVM controls:

Refer to Section 3

List exposure limits:

N/A

SECTION 16: OTHER INFORMATION

Additional information:

For product information visit the Merial website www.merial.co.nz
While the information set forth is believed to be accurate as of the date hereof, MERIAL NZ LTD. makes no warranty with respect hereto and disclaims all liability from reliance thereon.