



# SAFETY DATA SHEET

Product Name: Genesis Hi-Mineral

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Reviewed on: 16<sup>th</sup> October 2008

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

**Product name:** Genesis Hi Mineral  
**Product code:** A7189  
**Recommended use:** Oral drench for the control and treatment of roundworms in sheep. Contains minerals (cobalt, iodine, zinc, copper, and selenium).  
**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:** 10 April 2006

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical characterization:** Clear blue solution

**Product components:**

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
Abamectin	71751-41-2	1g/L
Benzenemethanol	100-51-6	40g/L
Iodine EDDI	5700-49-2	1.25 (1 g/L Iodine)
Copper versenate	14025-15-1	13.2 (2.1g/L Copper)
Selenium		0.5 g/L Selenium
Other		To 1L

## SECTION 3: HAZARDS IDENTIFICATION

**Hazard classifications:** 6.1E, 6.5B, 6.8B, 6.8C 9.1A, 9.2C, 9.4A  
**Priority and secondary identifiers:** WARNING KEEP OUT OF REACH OF CHILDREN  
WARNING Dangerous to the environment  
**Risk and safety phrases:** May be harmful if swallowed. Handle with care.  
Repeated exposure may cause skin allergy. Avoid skin contact.  
May affect development and/or reproduction. Handle with care.  
May have effects on or via lactation. Handle with care.  
Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container.  
Harmful to the soil environment. Avoid release to the environment.  
Very toxic to terrestrial invertebrates. Avoid release to the environment.

## SECTION 4: FIRST AID MEASURES

**Necessary first aid measures:** For advice contact the National Poisons Centre on 0800 POISON (0800 764 766), or a doctor immediately.  
**INGESTION:** If swallowed seek medical attention. Do NOT induce vomiting.  
**EYES:** If splashed in eyes wash out immediately with water.  
**SKIN:** If skin or hair contact occurs remove contaminated clothing and flush skin and hair with running water.  
**INHALATION:** Remove to fresh air.

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<b>Workplace facilities:</b>	<u>SELF INJECTION</u> : Seek medical advice. No special facilities required.
<b>Required instructions:</b>	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.
<b>Notes for medical personnel:</b>	Apply symptomatic therapy (no specific antidote). Note the nature of the product.

## SECTION 5: FIRE FIGHTING MEASURES

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

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Emergency procedures:</b>	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

<b>Precautions for safe handling:</b>	Apply with well-maintained and calibrated equipment. Handle with care
<b>Regulatory requirements:</b>	N/A.
<b>Handling practices:</b>	N/A.
<b>Approved handlers:</b>	Not required
<b>Conditions for safe storage:</b>	Store below 25°C in a cool place away from direct sunlight. Keep out of reach of children.
<b>Store site requirements:</b>	This substance is subject to a requirement for an emergency management plan, secondary containment and signage, whenever it is held in quantities of 100L or more. See Hazardous Substances (Emergency management) regulations 25 to 42.
<b>Packaging:</b>	Packaging Schedule 3 (UN Packing Group III) for quantities >5L (Hazardous Substances Packaging Regulations 2001).

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Workplace exposure standards:</b>	Selenium compounds, as Se TWA 0.1mg/m <sup>3</sup> Copper fume TWA 0.2mg/m <sup>3</sup> Copper dusts & mists, as Cu TWA 1mg/m <sup>3</sup> Iodine Ceiling TWA 0.1ppm Dusts 10mg/m <sup>3</sup>
<b>Application in the workplace:</b>	Prevent exposure by using engineering controls, personal protective equipment and work practices that prevent skin and eye contact.

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<b>Exposure standards outside the workplace:</b>	EEL: Copper (Cu <sup>2+</sup> ) 0.0013mg/L water
<b>Engineering controls:</b>	Ensure that ventilation maintains dust levels below WES.
<b>Personal protection:</b>	Clothing should consist of overalls with long sleeves, and impervious gloves.
<b>References:</b>	N/A.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Specify product data:</b>	<u>Appearance</u> : Clear blue liquid <u>Specific gravity</u> : 1.025-1.050 g/ml <u>pH</u> : 6-8 <u>Boiling point</u> : Ca. 100 <sup>o</sup> C <u>Solubility in Water</u> : Abamectin is insoluble in water
<b>Required specifications:</b>	N/A.
<b>Further specifications:</b>	N/A.
<b>Specific advice:</b>	N/A.

## SECTION 10: STABILITY AND REACTIVITY

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

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Data and interpretation:</b>	May be harmful if swallowed. Repeated exposure may cause skin allergy. Danger of serious damage to health by prolonged exposure if swallowed. May affect development and/or reproduction. May have effects on or via lactation.
<b>Summaries data:</b>	<u>Abamectin</u> : Abamectin is an acute oral toxin [LD <sub>50</sub> (oral) 8.7-12.8mg/kg]. Ingestion of a single large dose of abamectin by humans (~ 100mg/kg) was associated with coma, hypotension and respiratory failure. Clinical signs in repeated-dose laboratory animal studies included ataxia, tremor, mydriasis, emesis, pupil dilation and coma. High doses produced respiratory failure and deaths. The critical adverse effects in multigenerational reproductive studies were mortality and reduced weight gain of pups in early lactation (NOAEL 0.12mg/kg/d). <u>Benzenemethanol</u> : An organic alcohol that is used as a preservative [LD <sub>50</sub> (oral, rabbit) 1050mg/kg; LD <sub>50</sub> (dermal, rabbit) 2000mg/kg]. It is a known skin sensitiser (contact dermatitis) and a moderate eye irritant. <u>Copper versenate</u> : Low to moderate acute toxicity. Copper may induce allergic contact dermatitis in susceptible individuals and is eye and skin irritant. Repeated dose chronic studies reported reduced growth rates, liver and kidney effects and microcytic anaemic in laboratory species. <u>Iodine EDDI</u> : 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. <u>Selenium</u> : Sodium selenate is acutely toxic [LD <sub>50</sub> (oral) 25mg/kg]. Dusts are toxic if inhaled and irritant to eyes. Acute poisoning exhibits as dyspnea, spasms and death from respiratory failure.

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**Format:**

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).

No further available data

## SECTION 12: ENVIRONMENTAL INFORMATION

**Potential environmental interactions:**

Very toxic to aquatic organisms. Harmful to the soil environment. Very toxic to terrestrial invertebrates.

**Data organisation :**

Abamectin: Abamectin is a highly effective insecticide and acaricide produced by the soil microbe *Streptomyces avermitilis*. It acts by stimulating the release of gamma-aminobutyric acid, an inhibitory neurotransmitter, causing paralysis of the parasite. It is highly toxic to invertebrates in the aquatic, soil and terrestrial environments.

Aquatic organisms: Abamectin is highly toxic to fish and extremely toxic to aquatic invertebrates [LC<sub>50</sub> Rainbow trout is 3.6 ppb (96hrs); EC<sub>50</sub> *Daphnia magna* 0.34 ppb (48hrs) ]. Persist: yes. Soil organisms: Dung beetle Terrestrial fate value 20-40. Abamectin is toxic to mammals [LD<sub>50</sub> (oral, rats) 8.7 mg/kg], but is less toxic to birds [LC<sub>50</sub> Bobwhite quail >2000 mg/kg]. Abamectin is highly toxic to bees [LD<sub>50</sub> (oral) 0.0094 µg/bee; LD<sub>50</sub> (contact) 0.002 µg/bee].

Benzenemethanol: An organic alcohol that is used as a preservative. Benzenemethanol is toxic to aquatic and soil organisms [LC<sub>50</sub> *Lepomis macrochirus* 10mg/mL (96hrs); EC<sub>50</sub> *Daphnia magna* 55mg/L (24hrs); EC<sub>50</sub> microbial 50mg/L] and is a potential terrestrial vertebrate toxin based on laboratory animal toxicity data [LD<sub>50</sub> (oral, rabbit) 1050mg/kg].

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

Iodine EDDI: Very toxic to aquatic organisms [LC<sub>50</sub> (96hr, Rainbow trout) 530µg/L; EC<sub>50</sub> (48hr, *Daphnia magna*) 160ug/L]. Toxic to terrestrial vertebrates based on an acute oral LD<sub>50</sub> (rat) of 960mg/kg. Potentially a terrestrial vertebrate toxin based on acute toxicity data.

Selenium: Very toxic to fish [LC<sub>50</sub> (96hr, Flathead minnow) 690µg/L], to crustacea [LC<sub>50</sub> (48hr, *Grammarus pseudolimnaeus*) 83µg/L] and algae [EC<sub>50</sub> (96hr, green algae) 0.2mg/L]. Toxic to plants [EC20 (22d) 0.1mg/kg soil]. Toxic to terrestrial vertebrates based on an acute oral LD<sub>50</sub>(rats) of 25 mg/kg. Selenium is bioaccumulative and persists.

**Environmental risk and safety phrases:**

Toxic to the soil environment.

Very toxic to terrestrial invertebrates

## SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal information :**

Product Disposal: 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.  
Container Disposal: 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. (Abamectin 1%)  
UN Number: 3082  
DG Class: 9  
Maximum Transport Quantity: 1L.

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**Other requirements:** N/A

## SECTION 15: REGULATORY INFORMATION

**Regulatory status:** Registered pursuant to the ACVM Act 1997, No. A7189  
See [www.nzfsa.govt.nz/acvm](http://www.nzfsa.govt.nz/acvm) for registration conditions

Approved pursuant to the HSNO Act, Approval Code HSR001874  
See [www.ermanz.govt.nz](http://www.ermanz.govt.nz) for approval conditions

**HSNO and ACVM controls:** SDS is required for quantities greater than or equal to 1L  
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](http://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.