

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product name:	IVOMEK Liquid for Sheep & Goats
Product code:	A4204
Recommended use:	For the treatment and control of major gastrointestinal nematodes, lungworm, nasal bots and itchmite of sheep and gastrointestinal nematodes and lungworm of goats.
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 September 2007

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Multicomponent Liquid / Avermectin

Product components:

Name	CAS	Proportion
Benzyl alcohol	100-51-6	3%
Ivermectin Comp.B1a (C48H74014) Comp. B1b (C47H72014)	70288-86-7	0.08%
Propylene Glycol	57-55-6	20%
Non hazardous inert ingredients		qs

SECTION 3: HAZARDS IDENTIFICATION

Hazard classifications :	6.5B, 9.1A, 9.2C, 9.4A
Priority and secondary identifiers:	Ecotoxic
Risk and	Warning – Repeated exposure may cause skin allergy. Avoid

safety phrases:	<p>skin contact.</p> <p>Ecotoxic – Very toxic to aquatic organisms. Avoid contamination of any water supply with product or empty container.</p> <p>Harmful to the soil environment. Apply only as directed.</p> <p>Very toxic to terrestrial invertebrates. Apply only as directed</p>
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SECTION 4: FIRST AID MEASURES

Necessary first aid measures:	<p>Contact the National Poisons Information Centre for further information: phone 0800 POISON (764 766)</p> <p><u>Eye Contact:</u> Direct contact of the solution with eyes can cause irritation. Rinse opened eye for a minimum of 15 minutes under running water. Get medical attention immediately.</p> <p><u>Skin Contact:</u> Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. If skin irritation occurs, consult a doctor.</p> <p><u>Inhalation:</u> Remove to fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.</p> <p><u>Ingestion:</u> Immediately call a doctor.</p>
Workplace facilities:	N/A
Required instructions:	N/A
Notes for medical personnel:	N/A

SECTION 5: FIRE FIGHTING MEASURES

Type of hazard:	<p>Product is not self-igniting.</p> <p>Product does not present an explosion hazard.</p>
Fire hazard properties:	If involved in a fire, toxic gases including carbon monoxide and carbon dioxide may be generated.
Regulatory requirements:	N/A
Extinguishing media and methods:	Extinguish fires with foam, dry chemical or carbon dioxide. Cool sealed drums with water to prevent rupture due to thermal expansion. Contain run-off. Keep non-involved persons away.
Hazchem code:	2X
Recommended protective clothing:	Self-contained breathing apparatus and full protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency procedures:	<p>Wear overalls, chemical resistant gloves, boots and safety goggles. Prevent further spillage. Sweep up solids without generating dust. Wash down affected area with water plus detergent. Absorb and collect washings and place in the same sealable container for disposal.</p> <p>Ivermectin is very toxic to certain aquatic species. Avoid contact of spilled materials and runoff with soil and surface waterways. Do not flush into drains or natural waterways or areas draining into potable water supplies. Follow all fire prevention procedures Contact emergency response personnel for large spills. Keep unnecessary persons away.</p> <p>Seek advice from the local authority regarding disposal.</p>
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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	<p>Store in cool, dry place in tightly closed containers.</p> <p>Handle with care. Avoid jolting and impact.</p>
Regulatory requirements:	N/A
Handling practices:	N/A
Approved handlers:	Approved handler not required.
Conditions for safe storage:	Store in original container in a locked, dry, cool area (< 30°C (86°F)) away from foodstuffs, children and animals. Keep container sealed when not in use. Handle with care. Avoid jolting and impact.
Store site requirements:	Stores containing equal to or more than 100L of IVOMEK Liquid for Sheep & Goats require bunding and are subject to signage. See the Hazardous Substances Emergency Management Regulations 35-41, Identification Regulations 34 & 35 and NZS 8409 for further information.
Packaging:	Packing Group III

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Workplace exposure standards:	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Application in the workplace:	N/A
Exposure standards outside the workplace:	N/A
Engineering controls:	N/A
Personal protection:	<p>Wash hands before breaks and at the end of work.</p> <p>Avoid contact with the eyes and skin.</p>

	Do not eat, drink, smoke or inhale. Do not store food in the working area.
References:	N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specify product data:	<u>Appearance</u> : Pale yellow free-flowing solution. <u>Odor/Threshold Level</u> (ppm): Practically odourless. <u>pH</u> : 5.6 - 6.6 at 25°C
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
Conditions to avoid:	No dangerous reactions known.
Material to avoid:	Oxidizing materials
Hazardous decomposition products:	N/A
Hazardous polymerization:	N/A
Specific data:	N/A

SECTION 11: TOXICOLOGICAL INFORMATION

Data and interpretation:	N/A
Summaries data:	N/A
Effect of Acute Exposure	<u>Eye Contact</u> : Direct contact of the solution with eyes can cause irritation. <u>Skin Contact</u> : Ivermectin is non-irritating in animal studies. Although skin absorption of this formulation of Ivermectin is not established, it has been shown that less than 1% of the closely related compound abamectin is absorbed through the skin of rhesus monkeys when it is applied as emulsifiable concentrate or suspended in alcohol. <u>Inhalation</u> : No toxicity has been observed by this route of

Effects of Chronic Exposure

exposure to Ivermectin.

Ingestion: Pure Ivermectin is considered highly toxic in acute animal studies. The acute oral toxicity studies of Ivermectin have shown clear differences among species in sensitivity to Ivermectin toxicity. Rodents are uniquely sensitive compared to the other species in which the compound has been tested. It is therefore inappropriate to base human risk assessment on the response in mice. Ivermectin is used at a therapeutic dose of 200 mcg/kg in a variety of species, including human. Ivermectin can be excreted in milk.

If overexposed to Ivermectin, symptoms may include decreased activity, slow rate of breathing, dilation of the pupils, muscle tremors, and incoordination.

Unknown for product mixture. When this product is used according to the directions, prolonged exposure of man is not expected. Ivermectin has tested negative in several mutagenicity studies. Ivermectin was administered to dogs daily for 3 months and to monkeys daily for 2 weeks. In dogs there was no effect up to 500 mcg/kg/day and in adult rhesus monkeys there was no effect at the maximum dosage used 1.2 mg/kg/day. At higher doses in dogs there was dilation of the pupils, and at still higher doses tremor and anorexia were noted. Ivermectin can be given during gestation in horses, cattle, pigs and sheep.

SECTION 12: ENVIRONMENTAL INFORMATION

Potential environmental interactions:

The product contains materials that are harmful to the environment.

Data organisation :

N/A

Environmental risk and safety phrases:

UN 3082 Environmentally hazardous substance, liquid, N.O.S. (ivermectin)
 Marine pollutant.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal information :

Seek advice from the local authority regarding disposal.

SECTION 14: TRANSPORT INFORMATION

Relevant information:

Maximum Transport Quantity: 250 L
 DG Class 9 for road transport
 UN 3082
 Tracking not required

Other requirements:

N/A

SECTION 15: REGULATORY INFORMATION**Regulatory status:**

Registered pursuant to the ACVM Act 1997, No. A4204. See www.nzfsa.govt.nz/acvm for registration conditions.

Approved pursuant to the HSNO Act 1996, Approval Code HSR001838. See www.ermanz.govt.nz for approval conditions

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.