SAFETY DATA SHEETS

This SDS packet was issued with item:

078344959

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078344934 078344942 078344967 078345124 078345223

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

078345165 078345231 078408429 078408494

Material Safety Data Sheet
ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1

Printing date 01/07/2010 Reviewed on 01/07/2010

1 Identification of substance

· **Product details**

· **Trade name: Ivermectin**
IVOMEC Injection for Cattle and Swine

· **Manufacturer/Supplier:**
Merial Limited
3239 Satellite Blvd.
Duluth, Ga. 30096-4640
1-888-MERIAL 1 (1-888-637-4251)

· **Emergency information:**
Spill Information:
CHEMTREC® 1-800-424-9300
CHEMTREC® International 1+703-527-3887
International calls 011+703-527-3887
Reverse charges.

2 Composition/Data on components

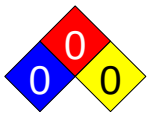
· **Chemical characterization**
· **Description:** Mixture: consisting of the following components.

· **Components:**

57-55-6	Propylene Glycol		59.0%
5464-28-8	Glycerol Formal	Warning: 2.6/4	40.0%
70288-86-7	Ivermectin Comp. B1a Comp. B1b	T, N; R 20/21-25-50 Danger: 3.1.O/2, 3.1.D/3, 3.1.I/3 Warning: 4.1.A/1	1.0%

3 Hazards identification

· **Hazard description:** Not applicable.
· **Classification system:**
The classification was made according to the latest editions of international substances lists, and from company and regulatory data.
· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

· **GHS label elements**
Warning
2.6/4 - Combustible liquid.

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IVOMEC Injection for Cattle and Swine

· **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
· **Response:**
In case of fire: Use for extinction: CO2, powder or water spray.
· **Storage:**
Store in a well-ventilated place. Keep cool.
· **Disposal:**
Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· **General information:** No special measures required.
· **After inhalation:**
Not an expected route of entry.
Seek immediate medical advice.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for a minimum of 15 minutes under running water. Get medical attention immediately.
· **After swallowing:** Immediately call a doctor.
· **After self injection**
· **Information for doctor.**
Direct contact with the eye can cause irritation. Ivermectin is non-irritating to the skin in animal studies.

5 Fire fighting measures

· **Suitable extinguishing agents:** Use water spray or all purpose dry chemical.
· **Protective equipment:**
Fire fighters should wear self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

· **Person-related safety precautions:** Not required.
· **Measures for environmental protection:** Do not allow product to reach sewage system or any water course.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to section 13.
· **Additional information:** No dangerous substances are released.

7 Handling and storage

· **Handling:**
· **Information for safe handling:**
Store in cool, dry place in tightly closed containers.
Handle with care. Avoid jolting and impact.
· **Information about protection against explosions and fires:** No special measures required.

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store only in the original container.
· **Information about storage in one common storage facility:** Not required.

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· **Further information about storage conditions:** Store in a cool, dry, well ventilated place.
· **Recommended storage temperature:** < 30°C (86°F)

8 Exposure controls and personal protection

· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or inhale.
Do not store food in the working area.
· **Protection of hands:**



Rubber or other impervious gloves

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**



Safety goggles.

9 Physical and chemical properties

· **General Information**	
Form:	Liquid
Color:	Colorless to Yellow
Odor:	Practically odorless
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	185°C (365°F)
· **Flash point:**	81°C (178°F)
· **Ignition temperature:**	371.0°C (700°F)
· **Auto igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	2.6 Vol %
Upper:	12.6 Vol %

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· **Vapor pressure at 20°C (68°F):** 0.1 hPa	
· **Specific gravity:**	Not determined.
· **Solubility in / Miscibility with Water:**	Not established

10 Stability and reactivity

· **Dangerous reactions** No dangerous reactions known.
· **Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

70288-86-7 Ivermectin Comp. B1a
Comp. B1b

Oral	LD Oral	>15 mg/kg (adult human)
	LD50	~80 mg/kg (dog)
		25 mg/kg (mouse)
		50 mg/kg (rat)
		>24 mg/kg (Rhesus monkey)
Dermal	LD50	406 mg/kg (rabbit)
		>660 mg/kg (rat)
Inhalation	LC50/4h	>0.4 mg/kg (rat)
	LD Subcutaneous	>1.6 mg/kg (adult human)
	LD50	55 mg/kg (rat)
	LD50 Subcutaneous	~10 mg/kg (juvenile dog)

· **Primary irritant effect:**
· **on the skin:** No irritating effect known.
· **on the eye:** No irritating effect known.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations.
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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12 Ecological information

· **Ecotoxological effects:**

· **Aquatic toxicity:**

70288-86-7 Ivermectin Comp. B1a
Comp. B1b

LC50 / 48 hrs	0.025 ppb (Daphnia magna)
LC50/96 hours	.3 µg/l (Rainbow Trout)

· **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow any volumes of product to reach ground water, water source or sewage system.
Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

· **Product:**
· **Recommendation:** Disposal must be made according to official regulations.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**
· **Hazard class:** Not Regulated

· **Land transport ADR/RID (cross-border):**
· **ADR/RID class:** 9 Miscellaneous dangerous substances and articles
· **UN-Number:** 3082
· **Packaging group:** III
· **Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (ivermectin)

· **Maritime transport IMDG:**
· **IMDG Class:** 9
· **UN Number:** 3082
· **Packaging group:** III
· **Marine pollutant:** Yes
· **Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (ivermectin)

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** 9
· **UN/ID Number:** 3082
· **Packing group:** III
· **Proper shipping name:** Environmentally hazardous substance, liquid, n.o.s. (ivermectin)

· **UN "Model Regulation":** -

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15 Regulations

· **SARA**

· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**
None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**
57-55-6 Propylene Glycol

· **CA Proposition 65**

· **Chemicals known to cause cancer:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

· **Carcinogenesis potential categories**

· **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **NTP (National Toxicology Program)**
None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**
None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

· **Product related hazard informations:**
Observe the general safety regulations when handling chemicals.
The product is not subject to identification regulations according to directives on hazardous materials.

· **Safety phrases:**
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Contact:*** *MSDS Coordinator, msds@merial.com*
· ***Abbreviations and acronyms:***
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

USA

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