SAFETY DATA SHEETS

This SDS packet was issued with item:

078054635

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

078344975 078344983 078344991 078345009 078345140 078345157 078408536 078430053 078432186 078673162 078770322 078946613

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).

078340116

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 Plus Injection for Cattle

· **Item number:** 67293, 67294, 67295, 67296, 67302, 67303, 67304, 67305

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

· **Information department:** MSDS Coordinator
· **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**

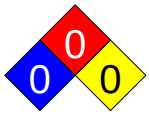
· **Components:**

57-55-6	Propylene Glycol		50.0%
5464-28-8	Glycerol Formal	Warning: 2.6/4	39.0%
60200-06-8	Clorsulon		10.0%
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%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

· **Hazard description:** Not applicable.
· **Information pertaining to particular dangers for man and environment:**
The product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
· **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

Obtained by Global Safety Management, Inc. (www.globalsafetynet.com)

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· **HMIS-ratings (scale 0 - 4)**

HEALTH 0	*Health = 0*
FIRE 0	*Fire = 0*
REACTIVITY 0	*Reactivity = 0*

· **GHS label elements**
Warning
2.6/4 - Combustible liquid.
· **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:** *Immediately remove any clothing soiled by the product.*
· **After inhalation:** *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.** *In case of symptomatic effect provide treatment to maintain life functions.*

5 Fire fighting measures

· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Protective equipment:** *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.

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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.*
· **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

· **Additional information about design of technical systems:** *No further data; see item 7.*

· **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.
· **Additional information:** *The lists that were valid during the creation were used as basis.*

· **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:**
Not required under normal conditions of use.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **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.

· **Body protection:** *Impervious protective clothing*

9 Physical and chemical properties

· **General Information**

Form:	*Liquid*
Color:	*Colorless to Yellow*
Odor:	*Slight or no odor*

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· **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°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 %
· **Vapor pressure at 20°C (68°F):**	0.1 hPa
· **Specific gravity at 25°C (77°F):**	1.09-1.21
· **Solubility in / Miscibility with**	
Water:	Not established
Organic solvents:	50.0 %
· **Solids content:**	1.0 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Dangerous reactions** No dangerous reactions known.
· **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
5464-28-8 Glycerol Formal		
Oral	LD50	10200 mg/kg (rat)
60200-06-8 Clorsulon		
Oral	LD50	>20 mg/kg (mouse) >10 mg/kg (rat)
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)

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Inhalation	*LC50/4h*	*>0.4 mg/kg (rat)*
	LD Subcutaneous	*>1.6 mg/kg (adult human)*
	LD50 Intraperitoneal	*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.

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 ug/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:***
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· ***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)*

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· **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":** -

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.

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· ***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.*

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.

· ***Department issuing MSDS:*** *MSDS Coordinator*
· ***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

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