



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

Printing date 03/16/2004

Reviewed on 03/16/2004

### 1 Identification of substance

- **Product details**
- **Trade name:** *Ivermectin*  
*IVOMEC POUR-ON FOR CATTLE*
- **Product number:** 41309A, 41310A, 41311A, 41350A
- **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:**

	Non hazardous inert ingredients		19.5 %
67-63-0	Isopropanol	Xi,  F; R 11-36-67	80.0%
70288-86-7	Ivermectin Comp. B1a (C48H74O14) Comp. B1b (C47H72O14)	T,  N; R 20/21-25-50	0.5%

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

### 3 Hazards identification

- **Hazard description:**



*Xi Irritant*  
*F Highly flammable*

- **Information pertaining to particular dangers for man and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 11 Highly flammable.  
R 36 Irritating to eyes.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and from company and regulatory data.

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· **NFPA ratings (scale 0 - 4)**



Health = 1  
 Fire = 4  
 Reactivity = 1

· **HMS-ratings (scale 0 - 4)**



Health = 1  
 Fire = 4  
 Reactivity = 1

### 4 First aid measures

- **General information:** Involve doctor immediately.
- **After inhalation:** Seek immediate medical advice.
- **After skin contact:**  
 If skin irritation occurs, consult a doctor.  
 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:** Do not induce vomiting; immediately call for medical help.
- **After self injection**
- **Information for doctor.**  
**The following symptoms may occur**  
 Prolonged contact may cause skin irritation and/or drying and cracking of the skin, nausea, headache and mild narcosis. If ingested, decreased activity, slow rate of breathing, dilation of the pupils, muscle tremors and incoordination may occur.

### 5 Fire fighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
 Isopropanol alcohol will not burn or ignite under normal usage, but it is a dangerous fire hazard and a moderate explosion hazard when exposed to heat, flames or oxidizers. Vapors are heavier than air and may travel a considerable distance to an ignition source and flashback.
- **Protective equipment:**  
 Fire fighters should wear self-contained breathing apparatus and full protective equipment.

### 6 Accidental release measures

- **Person-related safety precautions:**  
 Ensure adequate ventilation  
 Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
 Do not allow product to reach sewage system or any water course.

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**· 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 XIII.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

### 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.

Use only in well ventilated areas.

**· Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**· Storage:**

**· Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Store only in the original container.

**· Information about storage in one common storage facility: Not required.**

**· Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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:**

**67-63-0 Isopropanol**

PEL (USA)	980 mg/m <sup>3</sup> , 400 ppm
REL (USA)	Short-term value: 1225 mg/m <sup>3</sup> , 500 ppm Long-term value: 980 mg/m <sup>3</sup> , 400 ppm
TLV (USA)	Short-term value: 984 mg/m <sup>3</sup> , 400 ppm Long-term value: 492 mg/m <sup>3</sup> , 200 ppm
MAK (Germany)	500 mg/m <sup>3</sup> , 200 ppm Y; DFG

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

**· Personal protective equipment:**

**· General protective and hygienic measures:**

Keep away from foodstuffs, beverages.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

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*Do not eat, drink, smoke or inhale.*

*Do not store food in the working area.*

- **Breathing equipment:** *Use suitable respiratory protective device when aerosol or mist is formed.*
- **Protection of hands:** *Not required under normal conditions of use.*
- **Eye protection:**



*Tightly sealed goggles*

- **Body protection:** *Impervious protective clothing*

### 9 Physical and chemical properties

#### · General Information

**Form:** *Liquid*  
**Color:** *Blue*  
**Odor:** *Like alcohol*

#### · Change in condition

**Melting point/Melting range:** *Undetermined.*  
**Boiling point/Boiling range:** *82.5°C (181°F)*

· **Flash point:** *14°C (57°F)*

· **Ignition temperature:** *425.0°C (797°F)*

· **Auto igniting:** *Product is not self-igniting.*

· **Danger of explosion:** *Product is not explosive. However, formation of explosive air/vapor mixtures are possible.*

· **Vapor pressure at 20°C (68°F):** *0.784 hPa (1 mm Hg)*

· **Specific gravity:** *Not determined.*

#### · Solubility in / Miscibility with

**Water:** *Not miscible or difficult to mix.*

#### · Solvent content:

**Organic solvents:** *80.0 %*

· **Solids content:** *0.5 %*

### 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.*

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### 11 Toxicological information

· **Acute toxicity:**

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

<b>67-63-0 Isopropanol</b>		
Oral	LD50	4570 mg/kg (rat)
Dermal	LD50	13400 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)
<b>70288-86-7 Ivermectin Comp. B1a (C48H74O14) Comp. B1b (C47H72O14)</b>		
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)
Inhalative	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:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

### 12 Ecological information

· **Ecotoxicological effects:**

· **Acquatic toxicity:**

<b>70288-86-7 Ivermectin Comp. B1a (C48H74O14) Comp. B1b (C47H72O14)</b>	
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.

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### 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:** 3
- **Identification number:** UN1219
- **Packing group:** II
- **Proper shipping name (technical name):** ISOPROPANOL (ISOPROPYL ALCOHOL)
- **Label:** 3

· **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1219
- **Packaging group:** II
- **Proper shipping name:** 1219 ISOPROPANOL (ISOPROPYL ALCOHOL)

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1219
- **Label:** 3
- **Packaging group:** II
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)

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**· Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3  
 · **UN/ID Number:** 1219  
 · **Label:** 3  
 · **Packing group:** II  
 · **Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL)

### 15 Regulations

**· Sara**

**· Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

**· Section 313 (Specific toxic chemical listings):**

67-63-0 Isopropanol

**· TSCA (Toxic Substances Control Act):**

67-63-0 Isopropanol

**· CA Proposition 65**

**· Chemicals known to cause cancer:**

None of the ingredients are listed.

**· Chemicals known to cause reproductive toxicity:**

None of the ingredients are listed.

**· Carcinogenesis potential categories**

**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· IARC (International Agency for Research on Cancer)**

67-63-0 Isopropanol 3

**· 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:**

The product has been classified and marked in accordance with directives on hazardous materials.

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· **Hazard symbols:**

*Xi Irritant*

*F Highly flammable*

· **Risk phrases:**

*11 Highly flammable.*

*36 Irritating to eyes.*

· **Safety phrases:**

*2 Keep out of the reach of children.*

*7/9 Keep container tightly closed and in a well-ventilated place.*

*16 Keep away from sources of ignition - No smoking.*

*24/25 Avoid contact with skin and eyes.*

*26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

*29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point*

*33 Take precautionary measures against static discharges.*

*43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.*

*46 If swallowed, seek medical advice immediately and show this container or label.*

*60 This material and its container must be disposed of as hazardous waste.*

*64 If swallowed, rinse mouth with water (only if the person is conscious)*

· **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.*

· **Contact:** MSDS Coordinator, [msds@merial.com](mailto:msds@merial.com)