

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

Printing date 03/07/2006

Reviewed on 03/07/2006

**Trade name: Ivermectin**  
**IVOMEK 0.27% Injection for Grower and Feeder Pigs**

**· HMIS-ratings (scale 0 - 4)**

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

#### 4 First aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
No skin irritation is expected with this formulation.
- **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.**  
**The following symptoms may occur**  
Direct contact of the solution with eyes can cause irritation. The oral toxicity of this formulation is unknown.  
Overexposure to ivermectin may cause drowsiness, depressed motor activity, slowed breathing, dilation of the pupils, tremors, vomiting, anorexia and incoordination.

#### 5 Fire fighting measures

- **Suitable extinguishing agents:** Use water spray or all purpose dry chemical.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
In case of fire, the following can be released:  
Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)
- **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 XIII.  
Clean affected surfaces with towels moistened with methanol.

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### 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.*
- **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.*
- **Breathing equipment:** *Not required for this formulation when used in accordance with directions.*
- **Protection of hands:**



Rubber or other impervious gloves

- **Eye protection:** *Safety goggles.*
- **Body protection:** *Use protective apron and/or outer garment.*

### 9 Physical and chemical properties

#### · General Information

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless to Yellow
<b>Odor:</b>	Slight or no odor

#### · Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	185°C (365°F)

· <b>Flash point:</b>	101°C (214°F)
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· <b>Ignition temperature:</b>	371.0°C (700°F)
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· <b>Auto igniting:</b>	Product is not self-igniting.
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- |  |   |
|--|---|
| · <b>Danger of explosion:</b>                    | Product does not present an explosion hazard. |
| · <b>Vapor pressure at 20°C (68°F):</b>          | 0.1 hPa (0 mm Hg)                             |
| · <b>Specific gravity:</b>                       | Not determined.                               |
| · <b>Solubility in / Miscibility with Water:</b> | Not applicable                                |

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Stable, protect from light.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:**  
Carbon dioxide  
Carbon monoxide

### 11 Toxicological information

- **Acute toxicity:**

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

70288-86-7 Ivermectin Comp. B1a (C48H74O14)  
 Comp. B1b (C47H72O14)

Oral	LD50	~80 mg/kg (dog) 25 mg/kg (mouse) 50 mg/kg (rat)
Dermal	LD50	406 mg/kg (rabbit) >660 mg/kg (rat)
Inhalation	LC50/4 h	5.11 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** May cause irritation.
- **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**· **Ecotoxicological effects:**· **Aquatic toxicity:**

**70288-86-7 Ivermectin Comp. B1a (C48H74O14)**  
**Comp. B1b (C47H72O14)**

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:** Incinerate at an EPA approved incinerator facility.· **Uncleaned packagings:**· **Recommendation:** Disposal must be made according to official regulations.**14 Transport information**· **DOT regulations:**· **Hazard class:** -· **Land transport ADR/RID (cross-border):**· **ADR/RID class:** -· **Maritime transport IMDG:**· **IMDG Class:** -· **Marine pollutant:** No· **Air transport ICAO-TI and LATA-DGR:**· **ICAO/LATA Class:** -**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

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· **CA Proposition 65**

· **Chemicals known to cause cancer:**

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)**

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:**

29/56 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**

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013209

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**1 Identification of substance**

- **Product details**
- **Trade name: Ivermectin**  
**IVOMEC 0.27% Injection for Grower and Feeder Pigs**
- **Item number: 41257**
- **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**
- **Description: Mixture: consisting of the following components.**

· **Components:**

57-55-6	Propylene Glycol		59.69%
5464-28-8	Glycerol Formal		40.04%
70288-86-7	Ivermectin Comp. B1a (C48H74O14) Comp. B1b (C47H72O14)	T, N; R 20/21-25-50	0.27%

**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

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