SAFETY DATA SHEETS

This SDS packet was issued with item:

078345033

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

078408437 078408510 078704972 078714583 078714591

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).

078345041 078345058 078408460 078704964 078714757 078803141



Printing date 10/13/2010 Reviewed on 10/13/2010

1 Identification of substance

- · Product details
- · Trade name: IVOMEC POUR-ON FOR CATTLE
- · 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

· Components:			
67-63-0	Isopropanol	※ Xi, ♦ F; R 11-36-67	80.0%
70288-86-7	Ivermectin Comp. B1a Comp. B1b	☑ T, 💹 N; R 20/21-25-50	0.5%
	Non hazardous inert ingredients		19.5 %

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

3 Hazards identification

· Hazard description:





Irritant 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.

Has a narcotizing effect.

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness

· Classification system:

The classification was made according to the latest editions of international substances lists, and from company and regulatory data.

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



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.

If skin irritation occurs, consult a doctor.

· 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. 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.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Protective equipment: Self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

· Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · 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.

Ensure adequate ventilation.

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.

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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.
- · 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: $< 30^{\circ}C (86^{\circ}F)$

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/m³, 400 ppm	
REL (USA)	Short-term value: 1225 mg/m³, 500 ppm	
	Long-term value: 980 mg/m³, 400 ppm	
TLV(USA)	Short-term value: 984 mg/m³, 400 ppm	
	Long-term value: 492 mg/m³, 200 ppm	
MAK (Germany)	500 mg/m³, 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.

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:



Safety goggles.

9 Physical and chemical properties

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Form: Liquid
Color: Blue
Odor: Like alcohol

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· Change in condition Melting point/Melting range: Boiling point/Boiling range:	
· 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 mixture are possible.
· Explosion limits:	
Lower:	2.0 Vol %
Upper:	12.0 Vol %
· Vapor pressure at 20°C (68°F):	43.0 hPa (32 mm Hg)
· Specific gravity at 20°C (68°F):	· 0 g/cm³
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
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.
- · Materials to be avoided:
- · Dangerous reactions

Reacts with acetaldehyde, chlorine, ethylene oxide, hypochlorous acid, isocyanates, phosgene, oleum, perchloric acid, and strong oxidizing agents.

· Dangerous products of decomposition: No dangerous decomposition products known.

Toxicol	ogical informa	tion
Acute tox		
		elevant for classification:
67-63-0 I	sopropanol	
Oral	LD50	4570 mg/kg (rat)
Dermal	LD50	13400 mg/kg (rabbit)
Inhalatio	n LC50/4 h	30 mg/l (rat)
70288-86	-7 Ivermectin Coi	np. Bla
	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)

USA ·

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

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 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

· Ecotoxological effects:

· Aquatic toxicity:

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

LC50 / 48 hrs 0.025 ppb (Daphnia magna) LC50/96 hours | 0.3 ug/l (Rainbow Trout)

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:

UN1219 · Identification number:

· Packing group: II

· Proper shipping name (technical name): ISOPROPANOL (ISOPROPYL ALCOHOL)

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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: 1263 PAINT

· Maritime transport IMDG:



· IMDG Class: 3
 · UN Number: 1219
 · Label 3
 · Packaging group: II
 · EMS Number: F-E,S-E
 · Marine pollutant: Yes

· Proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)

· 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.

-USA

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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)

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:

· Hazard symbols:

Irritant

Highly flammable

· Risk phrases:

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness

· Safety phrases:

Keep out of the reach of children.

Keep container tightly closed and in a well-ventilated place.

Keep away from sources of ignition - No smoking.

Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin and eyes.

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

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point Take precautionary measures against static discharges.

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

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

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

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

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

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

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

USA -



Printing date 10/13/2010 Reviewed on 10/13/2010

1 Identification of substance

- · Product details
- · Trade name: IVOMEC POUR-ON FOR CATTLE
- · 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

· Components:			
67-63-0	Isopropanol	※ Xi, ♦ F; R 11-36-67	80.0%
70288-86-7	Ivermectin Comp. B1a Comp. B1b	☑ T, ½ N; R 20/21-25-50	0.5%
	Non hazardous inert ingredients		19.5 %

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

3 Hazards identification

· Hazard description:





Irritant 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.

Has a narcotizing effect.

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness

· Classification system:

The classification was made according to the latest editions of international substances lists, and from company and regulatory data.

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· NFPA ratings (scale 0 - 4)



· HMIS-ratings (scale 0 - 4)



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.

If skin irritation occurs, consult a doctor.

· 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. 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.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Protective equipment: Self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

· Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · 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.

Ensure adequate ventilation.

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.

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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.
- · 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: $< 30^{\circ}C (86^{\circ}F)$

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/m³, 400 ppm		
REL (USA)	Short-term value: 1225 mg/m³, 500 ppm		
	Long-term value: 980 mg/m³, 400 ppm		
TLV(USA)	Short-term value: 984 mg/m³, 400 ppm		
	Long-term value: 492 mg/m³, 200 ppm		
MAK (Germany)	500 mg/m^3 , 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.

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:



Safety goggles.

9 Physical and chemical properties

General	Information

Form: Liquid
Color: Blue
Odor: Like alcohol

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· Change in condition Melting point/Melting range: Boiling point/Boiling range:	
· 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 mixture are possible.
· Explosion limits:	
Lower:	2.0 Vol %
Upper:	12.0 Vol %
· Vapor pressure at 20°C (68°F):	43.0 hPa (32 mm Hg)
· Specific gravity at 20°C (68°F):	0 g/cm³
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
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.
- · Materials to be avoided:

11 Toxicological information

 $\cdot \textit{Dangerous reactions}$

Reacts with acetaldehyde, chlorine, ethylene oxide, hypochlorous acid, isocyanates, phosgene, oleum, perchloric acid, and strong oxidizing agents.

· Dangerous products of decomposition: No dangerous decomposition products known.

LD/LC50	values that are re	elevant for classification:	
67-63-0 I	sopropanol		
Oral	LD50	4570 mg/kg (rat)	
Dermal	LD50	13400 mg/kg (rabbit)	
Inhalation	n LC50/4 h	30 mg/l (rat)	
70288-86	-7 Ivermectin Coi	np. Bla	
	Comp. B1b		
Oral	LD Oral	>15 mg/kg (adult human)	
	LD50	~80 mg/kg (dog)	
		25 mg/kg (mouse)	
		50 mg/kg (rat)	

USA ·

>24 mg/kg (Rhesus monkey)

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

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 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

· Ecotoxological effects:

 $\cdot \textit{Aquatic toxicity:}$

70288-86-7 Ivermectin Comp. B1a

Comp. B1b

LC50/48 hrs 0.025 ppb (Daphnia magna) LC50/96 hours 0.3 ug/l (Rainbow Trout)

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:

· Identification number: UN1219

· Packing group:

· Proper shipping name (technical name): ISOPROPANOL (ISOPROPYL ALCOHOL)

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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: 1263 PAINT

· Maritime transport IMDG:



· IMDG Class: 3
 · UN Number: 1219
 · Label 3
 · Packaging group: II
 · EMS Number: F-E,S-E
 · Marine pollutant: Yes

· Proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)

· 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.

-USA

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

· 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)

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:

· Hazard symbols:

Irritant

Highly flammable

· Risk phrases:

Highly flammable.

Irritating to eyes.

Vapours may cause drowsiness and dizziness

· Safety phrases:

Keep out of the reach of children.

Keep container tightly closed and in a well-ventilated place.

Keep away from sources of ignition - No smoking.

Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin and eyes.

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

Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point Take precautionary measures against static discharges.

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

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

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

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

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

Printing date 10/13/2010 Reviewed on 10/13/2010

Trade name: IVOMEC POUR-ON FOR CATTLE

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

USA -