1 Identification

· Trade name: IVOMEC POUR-ON FOR CATTLE

2 Hazard(s) identification

· Classification of the substance or mixture

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· Label elements

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms GHS02, GHS07

· Signal word Danger

· Hazard-determining components of labeling:

Isopropanol

· Hazard statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
**Trade name: IVOMEC POUR-ON FOR CATTLE**

- **P241** Use explosion-proof electrical/ventilating/lighting/equipment.
- **P261** Avoid breathing dust/fume/gas/mist/vapors/spray.
- **P280** Wear protective gloves / eye protection / face protection.
- **P240** Ground/bond container and receiving equipment.
- **P242** Use only non-sparking tools.
- **P243** Take precautionary measures against static discharge.
- **P264** Wash thoroughly after handling.
- **P271** Use only outdoors or in a well-ventilated area.
- **P303+P361+P353** If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- **P305+P338** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **P312** Call a POISON CENTER/doctor if you feel unwell.
- **P337+P313** If eye irritation persists: Get medical advice/attention.
- **P370+P378** In case of fire: Use for extinction: CO2, powder or water spray.
- **P405** Store locked up.
- **P403+P233** Store in a well-ventilated place. Keep container tightly closed.
- **P403+P235** Store in a well-ventilated place. Keep cool.
- **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 4
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - Health = 1
    - Fire = 4
    - Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

  - **Components:**
    - 67-63-0 Isopropanol
      - Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336
      - 80.0%
    - 70288-86-7 Ivermectin Comp. B1a
      - Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 3, H331
      - 0.5%
    - Non hazardous inert ingredients
      - 19.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.
Trade name: IVOMEC POUR-ON FOR CATTLE

4 First-aid measures

- **Description of 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**
- **Most important symptoms and effects, both acute and delayed**
  In case of symptomatic effect provide treatment to maintain life functions.
- **Indication of any immediate medical attention and special treatment needed**
  No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **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
- **Special hazards arising from the substance or mixture**
  No further relevant information available.
- **Advice for firefighters**
  **Protective equipment:** Self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  Wear protective equipment. Keep unprotected persons away.
  Ensure adequate ventilation
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
  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.
- **Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions 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.
Trade name: IVOMEC POUR-ON FOR CATTLE

- Protect against electrostatic charges.

- Conditions for safe storage, including any incompatibilities

- 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 °C (86°F)
  - Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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

- Control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL (USA)</th>
<th>REL (USA)</th>
<th>TLV (USA)</th>
<th>MAK (Germany)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 Isopropanol</td>
<td>980 mg/m³, 400 ppm</td>
<td>Short-term value: 1225 mg/m³, 500 ppm</td>
<td>Long-term value: 980 mg/m³, 400 ppm</td>
<td>500 mg/m³, 200 ppm</td>
</tr>
</tbody>
</table>

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

- Exposure controls

- 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

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:** 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.
  
  - **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 (0 lbs/gal)
  
  - **Solubility in / Miscibility with**
    - **Water:** Not miscible or difficult to mix.
    - **Organic solvents:** 80.0 %
    - **Solids content:** 0.5 %
    - **Other information:** No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
  Reacts with acetaldehyde, chlorine, ethylene oxide, hypochlorous acid, isocyanates, phosgene, oleum, perchloric acid, and strong oxidizing agents.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.
11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>67-63-0 Isopropanol</th>
<th>70288-86-7 Ivermectin Comp. B1a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>Oral LD Oral</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>LD50</td>
</tr>
<tr>
<td>Inhalation LC50/4h</td>
<td>LD Subcutaneous</td>
</tr>
<tr>
<td></td>
<td>LD50 Intraperitoneal</td>
</tr>
<tr>
<td></td>
<td>LD50 Subcutaneous</td>
</tr>
<tr>
<td></td>
<td>4570 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>&gt;15 mg/kg (adult human)</td>
</tr>
<tr>
<td></td>
<td>13400 mg/kg (rabbit)</td>
</tr>
<tr>
<td></td>
<td>30 mg/l (rat)</td>
</tr>
<tr>
<td></td>
<td>25 mg/kg (mouse)</td>
</tr>
<tr>
<td></td>
<td>50 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>&gt;24 mg/kg (Rhesus monkey)</td>
</tr>
<tr>
<td></td>
<td>&gt;660 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>&gt;0.4 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>&gt;1.6 mg/kg (adult human)</td>
</tr>
<tr>
<td></td>
<td>&gt;1.6 mg/kg (adult human)</td>
</tr>
<tr>
<td></td>
<td>&gt;1.6 mg/kg (adult human)</td>
</tr>
<tr>
<td></td>
<td>55 mg/kg (rat)</td>
</tr>
<tr>
<td></td>
<td>0.025 ppb (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>0.025 ppb (Daphnia magna)</td>
</tr>
<tr>
<td></td>
<td>0.3 ug/l (Rainbow Trout)</td>
</tr>
<tr>
<td></td>
<td>0.3 ug/l (Rainbow Trout)</td>
</tr>
</tbody>
</table>

· 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

· Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0 Isopropanol</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NTP (National Toxicology Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA-Ca (Occupational Safety &amp; Health Administration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

12 Ecological information

· Toxicity

· Aquatic toxicity:

<table>
<thead>
<tr>
<th>70288-86-7 Ivermectin Comp. B1a</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 / 48 hrs</td>
</tr>
<tr>
<td>LC50 / 96 hours</td>
</tr>
</tbody>
</table>
Trade name: IVOMEC POUR-ON FOR CATTLE

- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Results of PBT and vPvB assessment:
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods:
  - Recommendation: Disposal must be made according to official regulations.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT
  - ADR, IMDG, IATA
    - UN1219
    - 1219
- UN proper shipping name
  - DOT, IMDG, IATA
    - ISOPROPANOL (ISOPROPYL ALCOHOL)
- Transport hazard class(es)
  - DOT
    - Class: 3 Flammable liquids
    - Label: 3
  - ADR, IMDG, IATA
    - Class: 3 Flammable liquids
    - Label: 3
- Packing group
  - DOT, ADR, IMDG, IATA
    - II
- Environmental hazards:
  - Marine pollutant: Yes
- Special precautions for user
  - Danger code (Kemler): Warning: Flammable liquids
  - EMS Number: F-E,S-E
Trade name: IVOMEC POUR-ON FOR CATTLE

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - 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 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.
    - 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.

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms GHS02, GHS07
  - Signal word Danger
  - Hazard-determining components of labeling: Isopropanol
  - Hazard statements
    - H225 Highly flammable liquid and vapor.
    - H319 Causes serious eye irritation.
    - H336 May cause drowsiness or dizziness.
  - Precautionary statements
    - P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
    - P241 Use explosion-proof electrical/ventilating/lighting/equipment.
Trade name: IVOMEC POUR-ON FOR CATTLE

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P280 Wear protective gloves / eye protection / face protection.
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P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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
· Date of preparation / last revision 03/23/2016 / -
· Abbreviations and acronyms:
  Flam. Liq. 2: Flammable liquids, Hazard Category 2
  Acute Tox. 2: Acute toxicity, Hazard Category 2
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3