

## Section 1 - Identification of Chemical Product and Company

Norbrook NZ Ltd  
KPMG Centre, 18 Viaduct Harbour Ave  
Auckland, New Zealand

Freecall: 0800 224 022

**Trade Name:** Noromectin Pour-On for Cattle and Deer  
**Product Use:** For the treatment and control of ivermectin sensitive strains of internal and external parasites in cattle and deer.  
**Creation Date:** July, 2020  
**This version issued:** November, 2020 and is valid for 5 years from this date.  
**Poisons Information Centre: Phone 0800 764 766 from anywhere in New Zealand**

## Section 2 - Hazards Identification

**HSNO Approval number:** HSR001872

**HSNO Hazard Classification:** 3.1B, 6.1D, 6.3B, 6.4A, 6.8C, 9.1A, 9.2C, 9.3C, 9.4A

**GHS PICTOGRAM:**



**SIGNAL WORD:** Danger

**HAZARD STATEMENT:**

- H225: Highly flammable liquid and vapour.
- H302: Harmful if swallowed.
- H316: Causes mild skin irritation.
- H319: Causes serious eye irritation.
- H362: May cause harm to breast-fed children.
- H400: Very toxic to aquatic life.
- H423: Harmful to the soil environment.
- H433: Harmful to terrestrial vertebrates.
- H441: Very toxic to terrestrial invertebrates.

**PREVENTION:**

- P102: Keep out of reach of children.
- P103: Read label before use.
- P201: Obtain special instructions before use.
- P210: Keep away from open flames/hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P260: Do not breathe mist/vapours.
- P263: Avoid contact during pregnancy/while nursing.
- P264: Wash contacted areas thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/eye protection/face protection.

**RESPONSE:**

- P101: If medical advice is needed, have product container or label at hand.
- P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330: Rinse mouth.
- P303 +P361 +P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313: IF exposed or concerned: Get medical advice/ attention.

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P332 + P313: If skin irritation occurs: Get medical advice/ attention.

P337 + P313: If eye irritation persists: Get medical advice/attention.

P370 + P378: In case of fire: Use alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used for extinction.

P391: Collect spillage.

**STORAGE:**

P403 + P235: Store in a well-ventilated place. Keep cool.

**DISPOSAL:**

P501: Dispose of product, packaging and waste at an approved landfill or equivalent facility.

**Section 3 - Composition/Information on Ingredients**

Ingredients	CAS No	Concentration
Ivermectin	70288-86-7	5 g/L
Isopropanol	67-63-0	774.5 g/L
Other ingredients	secret	Balance

**Section 4 - First Aid Measures**

**General Information:** For advice contact the number is 0800 764 766 in New Zealand and is available at all times. Have this SDS with you when you call.

**Inhalation:** If inhalation has occurred, and irritation has developed, remove from contaminated area to fresh air and observe until recovered. Do not allow victim to move about unnecessarily. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard.

**Eye Contact:** Immediately flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

**Section 5 - Fire Fighting Measures**

**Flash point:** 12°C

Upper Flammability Limit: 12.7% (IPA)

Lower Flammability Limit: 2.0% (IPA)

Autoignition temperature: 399°C (IPA)

**Fire and Explosion Hazards:** This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding materials. Water spray may be used to cool drums involved in a fire, reducing the chances of an explosion. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Fire Fighting Equipment:** Use self-contained breathing apparatus and full protective clothing.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam, water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, fine water spray can be used. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Section 6 - Accidental Release Measures**

**Personal Precautions:** Use appropriate protective clothing.

**Environmental Precautions:** Prevent spilled material from entering water ways. Avoid release to the environment.

**Methods and Materials for Containment and Cleaning up:** For minor spills, clean up and absorb spills with inert material and place in waste containers, labelled for disposal. Contain in a secure location until disposal method is established. Dispose of waste safely.

In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective clothing

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including eye/face protection. All skin areas should be covered. Suitable materials for protective clothing include Viton, Nitrile, butyl rubber, PE/EVAL, Responder. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator. Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Certified handler:** Not applicable

**Tracking:** Not applicable

**Storage:** Store below 25°C, in a dry well ventilated area, out of direct sunlight. Check packaging, there may be further storage instructions on the label. Keep container tightly closed. Keep away from open flames/hot surfaces. No smoking.

## Section 8 - Exposure Controls and Personal Protection

### Occupational exposure limits:

SWA Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Isopropanol	983	1230

The ADI for Ivermectin is set at 0.001mg/kg/day. The corresponding NOEL is set at 0.1mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Taken from Australian ADI List, June 2014.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: **AS/NZS 4501** set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Engineering Controls:** Normal room ventilation is sufficient.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Wear suitable protective glasses or goggles. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: Viton, nitrile, butyl rubber, PE/EVAL, Responder.

**Respirator:** In case of inadequate ventilation wear respiratory protection.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

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## Section 9 - Physical and Chemical Properties

<b>Appearance:</b>	Clear blue liquid
<b>Odour:</b>	Characteristic alcohol odour
<b>Odour threshold:</b>	No data
<b>pH:</b>	No data
<b>Melting Point/Freezing point:</b>	No data. Liquid at normal temperatures
<b>Initial boiling point and boiling range:</b>	82°C at 100kPa
<b>Flash point:</b>	12°C
<b>Flammability (solid, gas):</b>	No data
<b>Volatiles:</b>	>90%
<b>Upper/lower flammability or explosive limits:</b>	Upper Flammability Limit: 12.7% (IPA) Lower Flammability Limit: 2.0% (IPA) Autoignition temperature: 399°C (IPA)
<b>Vapour pressure:</b>	No data
<b>Vapour density:</b>	>1
<b>Relative density:</b>	0.8 approximately
<b>Solubility (ies):</b>	Completely soluble in water
<b>Auto-ignition temperature:</b>	399°C
<b>Decomposition temperature:</b>	No data
<b>Viscosity:</b>	No data

## Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Keep away from open flames/hot surfaces. No smoking. Handle and open containers carefully. Any electrical equipment in the area of this product should be flame proofed. Protect this product from light. Store in the closed original container in a dry, cool, well ventilated area out of direct sunlight.

**Incompatibilities:** Oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

## Section 11 - Toxicological Information

**Acute toxicity:** Ivermectin:

Oral LD50: 11.6 mg/kg (mouse)

Dermal LD50: 406 mg/kg (rabbit)

**Aspiration hazard:** No data

**Respiratory irritation:** No data

**Skin corrosion/irritation:** Ivermectin: Mildly irritating to the skin

**Serious eye damage/ irritation:** No data

**Respiratory or skin sensitisation:** No data

**Germ cell mutagenicity:** No data

**Carcinogenicity:** No data

**Reproductive toxicity:** Ivermectin: Produce toxic human reproductive or developmental effects on or via lactation

**Specific organ toxicity:** Ivermectin: Toxic to human target organs or systems (oral)

**Narcotic effects:** No data

## Section 12 - Ecological Information

**Aquatic:** Ivermectin:

Fish/ Component A LC50: 0.0032 mg/L (rainbow trout), 0.0096 mg/L (bluegill sunfish)

Crustacea/48 hours EC50: 0.00036 mg/L, /48 hours EC50: 0.000022 mg/L (Mysid shrimp)

**Terrestrial:** Ivermectin:

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Oral LD50: 11.6 mg/kg (mouse)

LD50: 0.002 ug/bee (bee)

**Persistence and degradability:** No data

**Bioaccumulative:** Ivermectin: No

**Mobility in soil:** Soil DT 50 > 30 days: yes

Ivermectin: 14 day LC50: 33 mg/kg soil (earthworms)

**Other adverse effects:** No data

### Section 13 - Disposal Considerations

**Disposal:** Dispose of product, packaging and waste at an approved landfill or equivalent facility. Avoid release to the environment.

### Section 14 - Transport Information

**UN Number:** 1219

**UN proper shipping name:** Isopropanol (Isopropyl alcohol)

**Dangerous goods class and subsidiary risk:** 3 - Flammable liquid

**UN Packaging Group:** II

**Environmental hazards:** Marine pollutant

**Special precautions when transporting the substance:** No information

**Hazchem Code:** 2YE

**Transport of Dangerous Goods Pictogram:**



### Section 15 - Regulatory Information

**HSNO Approval number:** HSR001872

**ACVM number:** A008032

### Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

#### Acronyms:

<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>SWA</b>	Safe Work Australia
<b>TWA</b>	Time Weighted Average
<b>STEL</b>	Short Term Exposure Limit
<b>UN Number</b>	United Nations Number
<b>LD50</b>	Lethal Dose for 50% of test organisms
<b>EC50</b>	Median effective concentration

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

Date of preparation: November, 2020.

## SAFETY DATA SHEET