

# VIRBAC (AUSTRALIA) PTY. LTD.

Document No:  
Indorex Premises  
Spray.Doc  
Revision C

## SAFETY DATA SHEET

Product Name:  
Indorex Premises Spray

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Date of Issue  
20 July, 2015

### Section 1 - Identification of The Material and Supplier

<b>Company:</b>	<b>Virbac (Australia) Pty. Ltd</b>	ABN 77 003 268 871
<b>Address</b>	361 Horsley Rd, Milperra, NSW 2214, Australia Locked Bag 6000, Milperra Business Centre, NSW 1891, Australia	
<b>Telephone:</b>	(02) 9772 9772 or 1800 242 100	
<b>Fax:</b>	(02) 9772 9773	
<b>Emergency phone</b>	As above during business hours; answering machine after hours	

**Chemical nature:** Blend of insecticides and insect growth regulator in a suitable solvent.

**Trade Name:** Indorex Premises Spray

**Product Code:** INDOREX500 (500mL)

**Product Use:** Insecticide spray intended to treat the environment of cats and dogs.

**Creation Date:** **November, 2010**

**This version issued:** **July, 2015** and is valid for 5 years from this date.

### Section 2 - Hazards Identification

#### STATEMENT OF HAZARDOUS NATURE

This product is classified as: Xn, Harmful. Xi, Irritating. N, Dangerous to the environment. F, Flammable. Hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**Risk Phrases:** R10, R52, R36/38. Flammable. Harmful to aquatic organisms. Irritating to eyes and skin.

**Safety Phrases:** S16, S61, S24/25. Keep away from sources of ignition - No smoking. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes.

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 3: Flammable liquids.

**UN Number:** 1993, FLAMMABLE LIQUID, N.O.S.



#### GHS Signal word: DANGER.

Flammability class: Flammable Category 3 (GHS); Flammable (AS1940)

#### HAZARD STATEMENT:

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H320: Causes eye irritation.

H335: May cause respiratory irritation.

H402: Harmful to aquatic life.

#### PREVENTION

P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.

P211: Do not spray on an open flame or other ignition source.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical ventilating, lighting and other equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

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, protective clothing and eye or face protection.

**Emergency: Virbac: 02 9772 9772 or 1800 242 100 (Business hours only)**  
**Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)**

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P281: Use personal protective equipment as required.

P235+P410: Keep cool. Protect from sunlight.

#### RESPONSE

P321: Specific treatment (see ... on the label).

P337: If eye irritation persists: seek medical attention.

P353: Rinse skin or shower with water.

P362: Take off contaminated clothing and wash before reuse.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P309+P311 If exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

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

P333+P313: If skin irritation or rash occurs: Get medical advice.

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

P381: Eliminate all ignition sources if safe to do so.

P391: Collect spillage.

P370+P378: In case of fire, note the following. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used. Try to contain spills, minimise spillage entering drains or water courses.

#### STORAGE

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

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

#### DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

### Emergency Overview

**Physical Description & colour:** Clear, pale yellow liquid presented in 500mL trigger spray bottles.

**Odour:** Alcohol odour.

**Major Health Hazards:** Permethrin is harmful to non-harmful via the oral route, with a reported LD<sub>50</sub> for technical Permethrin in rats of 430 to 4000 mg/kg. Via the dermal route, it is not harmful, with a reported dermal LD<sub>50</sub> in rats of over 4000 mg/kg, and in rabbits of greater 2000 mg/kg.

### Potential Health Effects

See section 11 for Chronic exposure studies.

#### Inhalation

**Short term exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

#### Skin Contact:

**Short Term Exposure:** Available data indicates that this product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

#### Eye Contact:

**Short Term Exposure:** This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

#### Ingestion:

**Short term exposure:** Available data shows that this product is not harmful. However, this product may be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.

#### Carcinogen Status:

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

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**IARC:** Permethrin is Class 3 - unclassifiable as to carcinogenicity to humans.

### Section 3 – Composition/Information on Ingredients

Ingredients	CAS No	Conc, %	TWA (mg/m3)	STEL (mg/m3)
Permethrin (40/60)	52645-53-1	5g/L	not set	not set
Piperonyl butoxide	51-03-6	10g/L	not set	not set
Pyriproxyfen	95737-68-1	50mg/L	not set	not set
Isopropanol	67-63-0	30-40	983	1230
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The 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 should not be exceeded for more than 15 minutes and should not be repeated for 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.

### Section 4 - First Aid Measures

#### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia and is available at all times. Have this SDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product 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. If irritation persists, repeat flushing and seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

**Ingestion:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

### Section 5 – Fire Fighting Measures

**Fire and Explosion Hazards:** This product is classified as a flammable product. There is a slight risk of an explosion from this product if commercial quantities are involved in a fire. 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.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** 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. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

**Flash point:** 24°C

**Upper Flammability Limit:** 12%

**Lower Flammability Limit:** 2% (IPA)

**Autoignition temperature:** No data.

**Flammability Class:** Flammable

### Section 6 – Accidental Release Measures

**Accidental release:** This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

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## 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.

**Storage:** Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination and possible evaporation. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. If you keep more than 1000L of flammable liquids of Packaging Group III, you probably require a license to do so. If you have any doubts, we suggest you contact your licensing authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## Section 8 Exposure Controls and Personal Protection

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**.

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

The ADI for permethrin is set at 0.05mg/kg/day. The corresponding NOEL is set at 5mg/kg/day.

The ADI for Piperonyl butoxide is set at 0.1mg/kg/day. The corresponding NOEL is set at 16mg/kg/day.

The ADI for Pyriproxyfen is set at 0.07mg/kg/day. The corresponding NOEL is set at 7mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, June 2013.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. 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. See below for suitable material types.

**Protective Material Types:** There is no specific recommendation for any particular protective material type.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

## Section 9 - Physical and Chemical Properties:

**Physical Description & colour:** Clear, pale yellow liquid presented in 500mL trigger spray bottles.

**Odour:** Alcohol odour.

**Boiling Point:** IPA boils about 82°C

**Freezing/Melting Point:** No specific data. Liquid at normal temperatures.

**Volatiles:** No data.

**Vapour Pressure:** 6.9kPa at 25°C; 44.8kPa at 55°C

**Vapour Density:** No data.

**Specific Gravity:** 0.94-0.96

**Water Solubility:** Miscible.

**pH:** Neutral - typically 6.7-7.2

**Volatility:** No data.

**Odour Threshold:** No data.

**Evaporation Rate:** No data.

**Coeff Oil/water distribution:** No data.

**Autoignition temp:** No data.

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## 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:** This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition.

**Incompatibilities:** strong oxidising agents.

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

**Polymerisation:** This product is unlikely to undergo polymerisation processes.

## Section 11 – Toxicological Information

**Toxicity: Acute toxicity:** Permethrin is harmful to non-harmful via the oral route, with a reported LD<sub>50</sub> for technical Permethrin in rats of 430 to 4000 mg/kg. Via the dermal route, it is not harmful, with a reported dermal LD<sub>50</sub> in rats of over 4000 mg/kg, and in rabbits of greater 2000 mg/kg. Permethrin caused mild irritation of both the intact and abraded skin of rabbits. It also caused conjunctivitis when it was applied to the eyes. The 4-hour inhalation LC<sub>50</sub> for rats was greater than 23.5 mg/L, indicating practically no inhalation toxicity. The toxicity of Permethrin is dependent on the ratio of the isomers present; the cis-isomer being more toxic.

**Chronic toxicity:** No adverse effects were observed in dogs fed Permethrin at doses of 5 mg/kg/day for 90 days. Rats fed 150 mg/kg/day for 6 months showed a slight increase in liver weights. Very low levels of Permethrin in the diet of chickens (0.1 ppm for 3 to 6 weeks after hatching) have been reported to suppress immune system activity.

**Reproductive effects:** The fertility of female rats was affected when they received very high oral doses of 250 mg/kg/day of Permethrin during the 6th to 15th day of pregnancy. It is not likely that reproductive effects will be seen in humans under normal circumstances.

**Teratogenic effects:** Permethrin is reported to show no teratogenic activity.

**Mutagenic effects:** Permethrin is reported to show no mutagenic activity.

**Carcinogenic effects:** The evidence regarding the carcinogenicity of Permethrin is inconclusive.

**Organ toxicity:** Permethrin is suspected of causing liver enlargement of the liver and nerve damage. Effects on the immune system have been noted in animal studies.

**Fate in humans and animals:** Permethrin is efficiently metabolized by mammalian livers. Breakdown products, or "metabolites," of Permethrin are quickly excreted and do not persist significantly in body tissues. When Permethrin is administered orally to rats, it is rapidly metabolized and almost completely eliminated from the body in a few days. Only 3 to 6% of the original dose was excreted unchanged in the faeces of experimental animals. Permethrin may persist in fatty tissues, with half-lives of 4 to 5 days in brain and body fat. Permethrin does not block, or inhibit, cholinesterase enzymes.

## Section 12 – Ecological Information

**Effects on birds:** Permethrin is practically non-toxic to birds. The oral LD<sub>50</sub> for a Permethrin formulation > 9900 mg/kg in mallard ducks, >13,500 mg/kg in pheasants, and >15,500 mg/kg in Japanese quail.

**Effects on aquatic organisms:** Aquatic ecosystems are particularly vulnerable to the impact of Permethrin. A fragile balance exists between the quality and quantity of insects and other invertebrates that serve as fish food. The 48-hour LC<sub>50</sub> for rainbow trout is 0.0125 mg/L for 24 hours, and 0.0054 mg/L for 48 hours. The 48-hour LC<sub>50</sub> in bluegill sunfish and salmon is 0.0018 mg/L. As a group, synthetic pyrethroids were toxic to all estuarine species tested. They had a 96-hour LC<sub>50</sub> of less than or equal to 0.0078 mg/L for these species. The bioconcentration factor for Permethrin in bluefish is 715 times the concentrations in water and is 703 in catfish. This indicates that the compound has a low to moderate potential to accumulate in these organisms.

**Effects on other organisms:** Permethrin is extremely toxic to bees. Severe losses may be expected if bees are present at treatment time, or within a day thereafter. Permethrin is also toxic to wildlife. It should not be applied, or allowed to drift, to crops or weeds in which active foraging takes place.

**Environmental Fate:**

**Breakdown in soil and groundwater:** Permethrin is of low to moderate persistence in the soil environment, with reported half-lives of 30 to 38 days. Permethrin is readily broken down, or degraded, in most soils except organic types. Soil microorganisms play a large role in the degradation of Permethrin in the soil. The addition of nutrients to soil may increase the degradation of Permethrin. It has been observed that the availability of sodium and phosphorous decreases when Permethrin is added to the soil. Permethrin is tightly bound by soils, especially by organic matter. Very little leaching of Permethrin has been reported. It is not very mobile in a wide range of soil types. Because Permethrin binds very strongly to soil particles and is nearly insoluble in water, it is not expected to leach or to contaminate groundwater.

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**Breakdown in water:** The results of one study near estuarine areas showed that Permethrin had a half-life of less than 2.5 days. When exposed to sunlight, the half-life was 4.6 days. Permethrin degrades rapidly in water, although it can persist in sediments. There was a gradual loss of toxicity after Permethrin aged for 48 hours in sunlight at 0.05 mg/L in water.

**Breakdown in vegetation:** Permethrin is not phytotoxic, or poisonous, to most plants when it is used as directed. Some injury has occurred on certain ornamental plants. No incompatibility has been observed with Permethrin on cultivated plants. Treated apples, grapes, and cereal grains contain less than one mg/kg of Permethrin at harvest time.

## Section 13 - Disposal Considerations

**Disposal:** Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

## Section 14 – Transport Information

**UN Number:** 1993, FLAMMABLE LIQUID, N.O.S.

**Hazchem Code:** •3Y

**Special Provisions:** 223, 274

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

**Dangerous Goods Class:** Class 3, Flammable liquids.

**Packaging Group:** III

**Packaging Method:** P001, IBC03, LP01

Class 3 Flammable Liquids shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 2.1 (Flammable Gases where flammable liquids and flammable gases are both in bulk), 2.3 (Toxic Gases), 4.2 (Spontaneously Combustible Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances, except Flammable Liquid is nitromethane), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases except where the Flammable Liquids and Flammable Gases are in bulk), 2.2 (Non-Flammable Non-Toxic Gases), 4.1 (Flammable Solids), 4.3 (Dangerous When Wet Substances), 6 (Toxic Substances, except where Flammable Liquid is nitromethane), 8 (Corrosive Substances), 9 (Miscellaneous Dangerous Goods), Foodstuffs or foodstuff empties.

## Section 15 – Regulatory Information

**AICS:** All of the significant ingredients in this product are compliant with NICNAS regulations.

## Section 16 – Other Information

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

**Contact point:** **Technical Manager, QA Manager or R&D Director**

**Telephone** **(02) 9772 9772 or 1800 242 100**

**Fax** **(02) 9772 9773**

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

**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.**

**VIRBAC (AUSTRALIA) PTY. LTD.**

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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.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)  
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