

**-\*-Section 1 - Identification of the Material and Supplier**

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**Trade Name:** **Zolvix Plus**  
**Product Use:** As described on the product label:  
Broad spectrum oral anthelmintic for sheep.  
**This version issued:** **08 November 2017** and is valid for 5 years from this date.  
**National Poisons Centre:** **Phone 0800 764 766 (0800 POISON) in New Zealand**

**Section 2 - Hazards Identification**

**EPA Approval Code:** HSR100758

**Hazard Classifications:**

- 6.1E: Aspiration hazard
- 6.8B: Reproductive/Developmental toxicant
- 6.8C: Reproductive/Developmental toxicant – Via Lactation
- 6.9B: Target organ toxicity
- 9.1A: Aquatic ecotoxicant
- 9.4A: Invertebrate ecotoxicant

**GHS Signal word:****Warning****HAZARD STATEMENT:**

- H305: May be harmful if swallowed and enter airways.
- H361: Suspected of damaging fertility or the unborn child.
- H362: May cause harm to breast-fed children.
- H373: Monepantel may cause damage to the liver through prolonged or repeated exposure.
- H410: Very toxic to aquatic life with long lasting effects.
- H441: Very toxic to terrestrial invertebrate.

**PREVENTION**

- P102: Keep out of reach of children.
- P103: Read label before use.
- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe mist.
- 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.
- P281: Use personal protective equipment as required.

**RESPONSE**

- P101: if medical advice is needed, have product container or label at hand.
- P301+P310: If SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P331: DO NOT induce vomiting.
- P308-P313: If exposed or concerned: Get medical advice/attention.
- P314: Get medical advice/attention if you feel unwell.
- P391: Collect spillage.

**STORAGE**

P405: Store locked up.

**DISPOSAL**

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

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

Ingredient	CAS number	Concentration	Hazard Classifications for ingredient
Monepantel	887148-69-8	25 g/L	6.9B, 9.1A
Abamectin	71751-41-2	2 g/L	6.1E, 6.8B, 6.8C, 9.4A
Other ingredients	NA	To 1 L	

**Section 4 - First Aid Measures**

**General Information:** You should call a National Poisons Centre if you feel irritated by this product. 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 to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

**Skin Contact:** Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for few 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.

**Eye Contact:** If irritation does occur, 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 swallowed, do NOT induce vomiting. Wash mouth with water and contact a National Poisons Centre, or call a doctor.

**Section 5 - Fire Fighting Measures**

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam, water fog.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. Recommended personal protective equipment is full fire kit and breathing apparatus.

**Flash point:** No data available

**Auto ignition temperature:** No data available

**Flammability Class:** No data available

**Section 6 - Accidental Release Measures**

**Personal Precautions:** Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with skin, eyes and clothing.

**Environmental Precautions:** Prevent spilled material from flowing onto adjacent land or into streams, ponds, or lakes. Avoid release to the environment.

**Methods and Materials for Containment and Cleaning up:** Clean up promptly and shovel the absorbed spill into labelled containers for disposal. Large spills due to traffic accidents, etc., should be reported immediately to Elanco Animal Health for assistance. Full details regarding disposal of used containers, spillage and unused material may be found on the label.

**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 below 25°C (Room temperature). Store in original container, tightly closed, away from direct sunlight, in a cool, dry place. Store locked up. Do not store with food. Keep out of reach of children.

**SAFETY DATA SHEET**

## Section 8 - Exposure Controls and Personal Protection

**Occupational exposure limits:** None established.

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

**Ventilation:** Make sure that the work environment remains clean and that vapours and mists are minimised.

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when 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: rubber, PVC.

**Respirator:** In case of insufficient ventilation, wear suitable respiratory equipment.

## Section 9 - Physical and Chemical Properties:

<b>Appearance:</b>	Clear yellowish to yellow-brown liquid.
<b>Odour:</b>	No data available
<b>Odour threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point/freezing point:</b>	No data available
<b>Initial boiling point and boiling range:</b>	Approximately 100°C at 100kPa
<b>Flash point:</b>	> 180°C
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Vapour pressure:</b>	2.37 kPa at 20°C (water vapour pressure)
<b>Vapour density:</b>	As for water.
<b>Relative density:</b>	No data available
<b>Solubility (water):</b>	Completely soluble in water
<b>Partition coefficient: n-octanol/water:</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Kinematic viscosity:</b>	No data available

## 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:** Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** No particular Incompatibilities.

**Fire Decomposition:** Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed.

## Section 11 - Toxicological Information

Hazardous properties	Ingredient	Toxicological (health) effects
<b>Acute toxicity:</b>	Monepantel	Oral: Rat LD50 > 2000 mg/kg
	Abamectin	Oral: Rat LD50 > 8.7 – 12.8 mg/kg
	Abamectin	Oral: Mouse LD50 13.6 mg/kg
	Monepantel	Dermal: Rat LD50 > 2000 mg/kg
	Abamectin	Dermal: Rabbit LD50 > 2000 mg/kg
	Abamectin	Dermal: Rat LD50 > 380 mg/kg
	Abamectin	Inhalation: Rat LC50 (4h) 1100 mg/m <sup>3</sup>



<b>Aspiration hazard:</b>		No information available
<b>Respiratory irritation:</b>		No information available
<b>Skin corrosion/irritation:</b>	Monepantel	Mild irritant
	Abamectin	Rabbit: No skin irritation
<b>Serious eye damage/ irritation:</b>	Monepantel	Not irritant
<b>Respiratory or skin sensitisation:</b>	Monepantel	Non sensitiser
	Abamectin	Guinea pig: Did not cause skin sensitization.
<b>Germ cell mutagenicity:</b>	Abamectin	Ames test: Negative
<b>Carcinogenicity:</b>	Abamectin	Long term tests did not reveal any indications of carcinogenic effects
<b>Reproductive toxicity:</b>	Abamectin	<p>Reproductive/Developmental toxicant:</p> <p>In two one-generation reproduction studies in rats the substance was administered in the diet at dose levels ranging from 0.1 to 2 mg/kg bw/day in rats. Maternotoxicity was observed at dose levels above 1 mg/kg bw/day. Fetotoxicity, consisting of reduced pup survival rates, reduced pup weight growth and retardation became evident at dose levels of 0.5 mg/kg bw/day and higher. The NOAEL for fetotoxicity was 0.1 mg/kg bw/day.</p> <p>In a two-generation reproduction study in rats at dose levels of 0.05, 0.12 or 0.4 mg abamectin/kg bw/day, the NOAEL for maternotoxicity was 0.05 mg/kg bw/day, based on reduced maternal body-weight gain during lactation at 0.12 mg/kg bw/day and above. The NOAEL for pup toxicity was 0.12 mg/kg bw/day, based on increased mortality and lowered pup weights at 0.4 mg/kg bw/day. The teratogenic potential of the substance administered by gavage was investigated in mice, rats and rabbits. Teratogenic effects, including cleft palates, omphaloceles and clubbed fore feet, were observed at maternotoxic doses in mice and rabbits. The NOAEL for teratogenicity in the most sensitive species, the mouse (CF1 strain) was 0.2 mg/kg bw/day, while for maternotoxicity the NOAEL was 0.05 mg/kg bw/day, based on the occurrence of tremors and deaths at higher doses.</p> <p>Reproductive/Developmental toxicant – Via Lactation:</p> <p>The substance may also cause adverse effects on offspring during lactation. In multigeneration studies of reproductive toxicity of the substance in rats, the critical adverse effects were those on pups during early lactation. While the test species may be more sensitive to the effects of the substance than human babies, the</p>
<b>Specific organ toxicity:</b>	Monepantel	Chronic ingestion studies in laboratory animals indicated that high, repeated, oral doses of monepantel may affect the liver.
<b>Narcotic effects:</b>		No information available

## Section 12 - Ecological Information

Hazardous properties	Ingredient	Ecotoxicity
<b>Aquatic:</b>	Monepantel	Rainbow trout: LC50 (96hrs) >100 mg/L
	Monepantel	Water flea, Daphnia magna: LC100 (48 hrs) >100 mg/L
	Monepantel	Algae, Pseudokirchneriella subcapitata: EC50 >100 mg/L
<b>Terrestrial:</b>	Abamectin	Acute-Daphnia magna: EC50 (48 hrs) 0.00034 mg/l Chronic-Daphnia magna: NOEC (21 days) 0.00003 mg/l
	Monepantel	Earthworm, Eisenia foetida: NOEC (28 d) 2.4 mg/kg
	Monepantel	Terrestrial plants (Brassica, Gycine, Avene) NOEC >100 mg/L
	Abamectin	Rat: LD50, 8.7-12.8 mg/kg
	Abamectin	Bee: LD50, 0.002 ug/bee

### For the component Abamectin:

#### Persistence and degradability:

Water photolysis half-life time:  $\leq$  0.5 d  
 Biodegradability aerobic: half-life time: 14 – 56 d

#### Bioaccumulative:

Bioconcentration factor BCF: 52

#### Mobility in soil:

Soil DT 50 > 30 days: yes

#### Other adverse effects:

No data available

## Section 13 - Disposal Considerations

**Disposal:** Follow the label directions.

Preferably dispose of the product by use. Otherwise dispose of product and packaging at an approved landfill or other approved facility. Triple rinse container with water and dispose of rinsate away from waterways. Crush or puncture and bury in a suitable landfill, or if appropriate recycle. Do NOT use container for any other purpose.

## Section 14 - Transport Information

**UN Number:** 3082

**UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Monepantel 2.5%, Abamectin 0.2%)

**UN dangerous goods class and subsidiary risk:** 9

**UN Packaging Group:** III

**Environmental hazards:** Marine pollutant

**Special precautions when transporting the substance:**

Hazchem Code: 3Z





## Section 15 - Regulatory Information

**EPA Approval Code:** HSR100758

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- 9.4A: Invertebrate ecotoxicant

**Certified handler:** Not required

**Tracking:** Not required

**ACVM No:** A011107

For conditions of registration see [www.foodsafety.govt.nz](http://www.foodsafety.govt.nz)

## Section 16 - Other Information

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

**This version issued:** 08 November 2017 and is valid for 5 years from this date.

**Acronyms:**

<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>EPA</b>	Environmental Protection Authority
<b>HSNO</b>	Hazardous Substances and New Organisms
<b>LD50</b>	Lethal Dose for 50% of test organisms
<b>LC50</b>	Lethal Concentration of chemical in the air or water that will kill 50% of the test animals when administered a single exposure.
<b>EC50</b>	Median effective concentration
<b>NOEC</b>	No Observed Effect Concentration
<b>NOAEL</b>	No Observed Effect Level
<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.

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 accordance with the HSNO Safety Data Sheet guidelines.**