SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Combination Sheep Drench**
Product Class:	Combination anthelmintic for the control of levamisole or benzimidazole resistant roundworms, lungworms and adult fluke in lambs and sheep.
Product Use:	Endoparasiticide
Restriction of Use:	Refer to Section 15
New Zealand Manufacturer:	**Jaychem Industries Ltd**
Address:	**3 Kordel Place** **East Tamaki, Auckland**
Telephone:	+64 9 274 6647
Fax Number:	+64 9 274 1358
Emergency Telephone:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	3 September 2018 v2

Section 2. Hazards Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: HSR001938

Pictograms

Irritant Chronic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1E (oral)	H303	May be harmful if swallowed.	Category 5
6.3B	H316	Causes mild skin irritation.	Category 3
6.5B	H317	May cause an allergic skin reaction.	Category 1
6.6B	H341	Suspected of causing genetic defects.	Category 2
6.8A	H360	May damage fertility or the unborn child.	Category 1A
6.9B	H373	May cause damage to organs through prolonged or repeated exposure.	Category 2

Prevention Code	Prevention Statement
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 fume, vapours or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective clothing.
P281	Use personal protective equipment as required.

Response Code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P363	Wash contaminated clothing before reuse.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

Storage Code	**Storage Statement**
P405	Store locked up.

Disposal Code	**Disposal Statement**
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Weight	CAS NUMBER.
Albendazole	25g/L	54965-21-8
Levamisole hydrochloride	37.5g/L	16595-80-5
Sodium selenate	1.3g/L	13410-01-0

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Rinse cautiously with water for 15 minutes. If eye irritation persists: Get medical advice.

If on Skin — Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs: get medical advice/attention.

If Swallowed — Rinse mouth. Do NOT induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTER or doctor/physician if you feel unwell.

If Inhaled — Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult or if you feel unwell.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: May be harmful if swallowed.
Inhalation: Not applicable.
Skin: Causes mild skin irritation. May cause an allergic skin reaction.
Eye: Not applicable.
Chronic: Suspected of causing genetic defects.
May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Section 5. Fire Fighting Measures

Hazard Type	Not Flammable.
Hazards from combustion products	None known.
Suitable Extinguishing media	Use media suitable for surrounding materials.
Precautions for firefighters and special protective clothing	Wear protective gear. Do not allow water to enter drains.
HAZCHEM CODE	**None Allocated**

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Restrict access to contaminated area.

Contain the spill and prevent further dispersion. Retrieve intact containers from site. Place damage containers into containment devices. Absorb spills with inert material and place in waste containers. Wash the area with water and absorb with further inert material. Collect spilled material and place in sealable containers for subsequent disposal. Avoid contamination of water courses or sewers.

Dispose of according to Local Regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Apply with well-maintained and calibrated equipment.
- Do not breathe fume, vapours or spray.
- Contaminated work clothing should not be allowed out of the workplace.
- Wear protective clothing.
- Use personal protective equipment as required.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Keep out of reach of children.
- Store locked up.
- This substance is subject to a requirement for an emergency management plan and secondary containment whenever it is held in quantities of 1000L or more. See Hazardous Substances (Emergency Management) regulations 25 to 42.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA*).The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Engineering Controls

Ensure that ventilation maintains dust levels below WES.

Personal Protection Equipment

Eyes	Wear goggles.Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.
Hands and Skin	Clothing should consist of overalls with long sleeves and impervious gloves. Wear protective goggles.
Respiratory	Not required. Wear respiratory protection if in an area of poor ventilation.

Section 9 Physical and Chemical Properties

Appearance	Blue suspension
Odour	Not available
Odour Threshold	Not applicable
pH	2.5 – 4.0
Boiling Point	Not applicable
Melting Point	Not applicable
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Not applicable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Specific Gravity	1.03 – 1.07
Solubilities	Not applicable
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Kinematic Viscosity	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	None known.
Incompatible Materials	None known.
Hazardous Decomposition Products	No hazardous products are expected, except when heated to decomposition.

Section 11 Toxicological Information

Acute Effects:

Swallowed	May be harmful if swallowed.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not application.
Skin	Causes mild skin irritation. May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not applicable.

Reproductive Toxicity	May damage fertility or the unborn child. Albendazole may affect development and/or reproduction.
Germ Cell Mutagenicity	Suspected of causing genetic defects. Albendazole and Levamisole HCl possibly may cause damage to genetic material.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Albendazole possibly may cause organ damage from repeated oral exposure at high doses. Levamisole HCl possibly may affect the blood and haematopoietic system.

Albendazole: Benzimadazoles prevent tubulin polymerization or spindle movement and their administration can result in aneuploidy. They are weak mutagens. Albendazole has low to moderate acute oral toxicity [LD50 (oral, rabbit) 500-1200mg/kg; LD50 (oral, rat) 1320-2400mg/kg; LD50 (oral, mice) >3000 mg/kg] Identified as a potential skin sensitizer by a positive result in a guinea pig maximization test. In repeated oral dose studies toxic effects included reduced weight gain, reduced erythrocyte and leucocyte counts, decreased testes and uterine weights, slight increases in relative liver and kidney weights and sterna bone marrow hypocelluarity (lowest NOAEL 5mg/kg/day. Teratogenicity (visceral, craniofacial and bone defects) has been demonstrated in animal studies (lowest NOAEL was 5mg/kg/day) Levamisole HCl:Levamisole is a broad spectrum anthelmintic with a long history of use in cattle and sheep. It has a moderate to high acute toxicity [LD50(oral, rats & mice) 200-500 mg/kg] A potential mutagen [levamisole induced chromosome gaps and breaks in human lymphocytes in vitro and in vivo and levamisole hydrochloride induced an increase in mitotic index, numerical chromosomal changes (aneuploidy, polyploidy) and structural chromosomal changes] haemolytic anaemic was the main toxic effect demonstrated in repeated dose animal studies (LOAEL 1.25mg/kg/day) In humans,
levamisole has been associated with various non-specific effects (nausea, vomiting, rashes). Levamisole has induced leucopenia and
agranulocytosis (idiosyncratic) at low doses.
Sodium selenate [LD50 (oral) 25 mg/kg]

Section 12. Ecotoxicological Information

This product is not harmful to the environment.
Sodium selenate 96-hr LC50 690µ(fathead minnow)

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method: Dispose of according to Local Regulations.

Precautions: None known.

Disposal methods to avoid: None known.

Section 14 Transport Information

This product is not classified as Dangerous Good for transport under NZ 5433: 2012 or IATA.

Road and Rail Transport

UN No:	Not a Dangerous Good
Class-primary	N/A
Packing Group	N/A
Proper Shipping Name:	N/A

Air Transport

UN No:	Not a Dangerous Good
Class-primary	N/A
Packing Group	N/A
Proper Shipping Name:	N/A

Marine Transport

UN No:	Not a Dangerous Good
Class-primary	N/A
Packing Group	N/A
Proper Shipping Name:	N/A

Section 15 Regulatory Information

EPA Approval Code: HSR001938

HSNO Classification: 6.1E(oral), 6.3B, 6.5B, 6.6B, 6.8A,6.9B

HSNO Controls:
Trigger quantities for this substance:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	1000L(6.5B)
Secondary Containment	1000L(6.5B)
Restrictions of use	None

Section 16 Other Information

Glossary

EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC_{50}	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD_{50}	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.

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Please contact the New Zealand distributor, if further information is required.

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