SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER	
Product name:	Turbo® Pour-on
Recommended use:	For the treatment and control of internal parasites in cattle.
Company name:	Alleva Animal Health Limited
Address:	1/116a Harris Road, East Tamaki 2013, Auckland, New Zealand
Telephone:	0064-9-4181405
Emergency telephone number:	National Poisons Centre: 0800 764 766 (0800 POISON) Fire Service, Ambulance: Dial 111
Date of Preparation	20 July 2020
Restrictions of Use	Refer to Section 15

SECTION 2: HAZARDS IDENTIFICATION

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

EPA Approval No: HSR100758

Pictograms

Toxic Chronic Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3B	H316	Causes mild skin irritation.	Skin Irrit. 3
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.5B	H317	May cause an allergic skin reaction.	Skin Sens. 1
6.6B	H341	Suspected of causing genetic defects	Muta. 2
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9A	H372	Cause damage to organs (oral)	STOT RE 1

		through prolonged or repeated exposure.	
6.9B	H373	May cause damage to organs (inhalation) through repeated or prolonged exposure	STOT RE 2
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1
9.2C	H423	Harmful to the soil environment.	-
9.3B	H432	Toxic to terrestrial vertebrates.	-
9.4A	H441	Very toxic to terrestrial invertebrates.	-

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 fumes, vapours and spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing as detailed in Section 8.
P281	Use personal protective equipment as required.

Response Code	**Response Statement**
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and 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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: 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

Product Components:		
Name	**CAS #**	**Concentration**
Levamisole Base	14769-73-4	200g/l
Eprinomectin	123997-26-2	10g/l
Non hazardous		To bal

SECTION 4: FIRST AID MEASURES

First Aid	**Skin Contact:** 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. **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice. **Ingestion:** If swallowed, immediately flush mouth with water. Never give anything to the mouth of an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell. **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	Ingestion: Harmful if swallowed. Inhalation: Not applicable. Skin: Causes mild skin irritation. May cause an allergic skin reaction. Eye: Causes serious eye irritation. Chronic: Suspected of damaging fertility or the unborn child. Suspected of causing genetic defects. Causes damage to organs (oral, inhalation) through prolonged or repeated exposure.

SECTION 5: FIRE FIGHTING MEASURES

Type of hazard:	This material is non-flammable or

	combustible.
Fire hazard properties:	Hazardous fumes when heated to decomposition
Extinguishing media and methods:	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Hazchem code:	**3Z**
Recommended protective clothing for firefighters:	When fighting a major fire wear full protective clothing including breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Personnel involved in clean-up should wear appropriate personal protective equipment as detailed in Section 8 to minimise exposure. Restrict access to contaminated area.
Environmental Precautions:	Prevent material from entering surface water drains or waterways.
Procedure for Spills:	Contain the spill and prevent further dispersion. Retrieve intact containers from site. Place damaged 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.
Procedure for Disposal:	Dispose of according to Local Regulations detailed in Section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	• Read label before use. • Obtain special instructions before use. • Do not handle until all safety precautions have been read and understood. • Do not breathe fumes, vapours and spray.

	• Wash hands thoroughly after handling. • Do not eat, drink or smoke when using this product. • Contaminated work clothing should not be allowed out of the workplace. • Avoid release to the environment. • Wear protective clothing as detailed in Section 8. • Use personal protective equipment as required.
Certified handlers:	• Not Required
Conditions for safe storage:	• Store away from incompatible materials listed in Section 10. • Keep out of reach of children. • Store locked up.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

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

No substance has 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. Workplace Exposure Standards and Biological Exposure Indices NOV 2019 11TH EDITION.

Engineering controls:	Ensure that ventilation maintains dust levels below WES.
Personal protection: 	**Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Follow the OSHA respirator regulations found in 29 CFR

	1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Hand protection:** The glove material has to be impermeable and resistant to the product ie Butyl rubber, BR **Eye protection:** Tightly sealed goggles.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear pale yellow to yellow solution
Odour	Mild Odour
Odour Threshold	Not applicable
pH	Not available
Boiling Point	Not available
Melting Point	Not applicable
Freezing Point	Not applicable
Flash Point	Not applicable
Flammability	Non flammable
Upper and Lower Explosive Limits	Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Specific Gravity	1.5
Water Solubility	Not available
Partition Coefficient:	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Kinematic Viscosity	Between 70 - 170 mPa.s

SECTION 10: STABILITY AND REACTIVITY

Stability of the substance:	This product is stable under normal conditions.
Conditions to avoid:	Extreme temperatures.
Material to avoid:	Strong oxidizing agents.
Hazardous decomposition products:	Possible hazardous fumes when heated to decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute effects:	
Swallowed **Dermal** **Inhalation** **Skin** **Eye**	Harmful if swallowed. Not applicable. Not applicable. May cause an allergic skin reaction. Causes serious eye irritation.
Chronic and long-term effects:	
Reproductive **Systemic**	Suspected of damaging fertility or the unborn child.
Carcinogenicity	Not applicable.
Aspiration	Not applicable.
Germ Cell Mutagenicity	Suspected of causing genetic defects
STOT/RE	May cause damage to organs (oral, inhalation) through prolonged or repeated exposure.

Eprinomectin: As all macrocyclic lactones, eprinomectin acts as agonist of the GABA (gamma-aminobutyric acid) neurotransmitter in nerve cells and also binds to glutamate-gated chloride channels in nerve and muscle cells of invertebrates. In both cases it blocks the transmission of neuronal signals of the parasites, which are paralyzed and expelled out of the body, or they starve. It also affects the reproduction of some parasites by diminishing oviposition or inducing an abnormal oogenesis. The literature shows the acute toxicity of Eprinomectin was determined in mice & rats. In female mice the oral & intraperitoneal DL50 values were 70 & 35 mg/kg body weight whereas in female rats the DL50 values were 55 & 35 mg/kg body weight after oral & intraperitoneal administration respectively. High doses produced respiratory failure and deaths. The critical adverse effects in multigenerational reproductive studies were mortality and reduced weight gain of pups in early lactation. Suspected of damaging fertility or the unborn child.

SECTION 12: ENVIRONMENTAL INFORMATION

HSNO Classes: 9.1A = Very toxic to aquatic life.
9.2C = Harmful to the soil environment.
9.3C = Harmful to terrestrial vertebrates.
9.4A = Very toxic to terrestrial invertebrates.

Persistence and	No data available

degradability	
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available
Precautions	Do not allow to enter waterways

SECTION 13: DISPOSAL CONSIDERATIONS

Product disposal:	Preferably dispose of the product by use. Otherwise dispose of product and packaging at an approved landfill or other approved facility. Burn empty container in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill.
Precautions:	Do NOT use container for any other purpose. Do not flush into drain or natural waterways. Do not reuse container.

SECTION 14: TRANSPORT INFORMATION

This product is classified as a Dangerous Good for transport in NZ; NZS 5433:2012

Road and Rail Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Air Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Marine Transport

UN No:	3082
Class-primary	9
Packing Group	III
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Limited Quantities Statement:

If the product's individual container is below 5L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.

SECTION 15: REGULATORY INFORMATION

Regulatory status:	Approved pursuant to the HSNO Act, EPA Approval Code HSR100758 See www.epa.govt.nz for approval conditions.
HSW (HS) Regulations 2017	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	100kg (9.1A)
Emergency Response Plan	100kg (9.1A)
Secondary Containment	100kg (9.1A)

HSNO Additional Controls (Restrictions of use)	
77A	**Refer to Controls document on EPA website for HSR100758**
Hazardous Property Controls Notice 2017	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
ACVM Approval No:	A011722. See www.foodsafety.govt.nz for registration controls

SECTION 16: OTHER INFORMATION

Glossary

EC50 Median effective concentration.
EEL Environmental Exposure Limit.
EPA Environmental Protection Authority
HSNO Hazardous Substances and New Organisms.
HSW Health and Safety at Work.
LC50 Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.

LD50 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

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

This Safety Data Sheet 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. ALLEVA Animal Health Limited makes no warranty with respect hereto and disclaims all liability from reliance thereon.

Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

PLEASE READ ALL LABELS CAREFULLY BEFORE USING PRODUCT.

Issued Date: 20 July 2020 Review Date: 20 July 2025