



# SAFETY DATA SHEET

Product Name: Turbo® Triple Minidose Oral Drench for Sheep & Cattle

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

<b>Product name:</b>	TURBO TRIPLE Minidose Oral drench for sheep/cattle
<b>Recommended use:</b>	For the treatment & control of internal parasites of sheep & cattle
<b>Company name:</b>	Alleva Animal Health Limited
<b>Address:</b>	1/116a Harris Road, East Tamaki, Auckland, 2013, New Zealand
<b>Telephone:</b>	0064-9-4181405
<b>Emergency telephone number:</b>	National Poisons Centre: 0800 764 766 (0800 POISON) Fire Service, Ambulance: Dial 111
<b>Date of Preparation</b>	13 July 2023 v1
<b>Restrictions of Use</b>	Refer to Section 15

## SECTION 2: HAZARDS IDENTIFICATION

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval Code: Veterinary Medicines (Non-Dispersive Closed System Application) – HSR100758

### Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 4	H302	Harmful if swallowed.
Eye irritation Cat. 2	H319	Causes serious eye irritation.
Respiratory sensitisation Cat. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
specific target organ toxicity – single exposure Cat. 3 respiratory tract irritation	H335	May cause respiratory irritation.



Germ cell mutagenicity Cat. 2	H341	Suspected of causing genetic defects.
Carcinogenicity Cat. 2	H351	Suspected of causing cancer.
Reproductive toxicity Cat. 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity – single exposure Cat. 2	H371	May cause damage to organs.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment acute Cat. 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment chronic Cat. 1	H410	Very toxic to aquatic life with long lasting effects.
Hazardous to soil organisms	H423	Hazardous to soil organisms
Hazardous to terrestrial vertebrates	H433	Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates	H443	Hazardous to terrestrial invertebrates

<b>Prevention Code</b>	<b>Prevention Statement</b>
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 dust, fumes, gas, mist, vapours or spray.
P263	Avoid contact during pregnancy and while nursing.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
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.
P285	In case of inadequate ventilation wear respiratory protection.

<b>Response Code</b>	<b>Response Statement</b>
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.
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.
P304 + P341	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.



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.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Storage Code	Storage Statement
P405	Store locked up.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

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

### SECTION 3: COMPOSITION

<b>Product Components:</b>		
<b>Name</b>	<b>CAS #</b>	<b>Weight %</b>
Eprinomectin	123997-26-2	< 1
Levamisole HCl	16595-80-5	5-10
Oxfendazole	53716-50-0	1-5
Selenium	13410-01-0	< 1
Disodium cobalt EDTA	15137-09-4	1-5
Non hazardous		To bal

## SECTION 4: FIRST AID MEASURES

<b>First Aid</b>	<p><b>Skin Contact:</b> 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.</p> <p><b>Eye Contact:</b> 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.</p> <p><b>Ingestion:</b> 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.</p> <p><b>Inhaled:</b> 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.</p>
<b>Most important symptoms and effects, both acute and delayed</b>	<p><b>Ingestion:</b> Harmful if swallowed.</p> <p><b>Inhalation:</b> May cause asthma or breathing difficulties if inhaled. May cause respiratory irritation.</p> <p><b>Skin:</b> May cause an allergic skin reaction.</p> <p><b>Eye:</b> Causes serious eye irritation.</p> <p><b>Chronic:</b> May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure.</p>

## SECTION 5: FIRE FIGHTING MEASURES

<b>Type of hazard:</b>	This material is non-flammable or combustible.
<b>Fire hazard properties:</b>	Hazardous fumes when heated to decomposition
<b>Extinguishing media and methods:</b>	Treat the fire as for the other materials present.
<b>Hazchem code:</b>	<b>3Z</b>
<b>Recommended protective clothing for firefighters:</b>	When fighting a major fire wear full protective clothing including breathing apparatus.



## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Personnel involved in clean-up should wear appropriate personal protective equipment as detailed in Section 8 to minimise exposure. Restrict access to contaminated area.
<b>Environmental Precautions:</b>	Prevent material from entering surface water drains or waterways.
<b>Procedure for Spills:</b>	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.
<b>Procedure for Disposal:</b>	Dispose of according to Local Regulations detailed in Section 13.

## SECTION 7: HANDLING AND STORAGE

<b>Precautions for safe handling:</b>	<ul style="list-style-type: none"> <li>• Read label before use.</li> <li>• Obtain special instructions before use.</li> <li>• Do not handle until all safety precautions have been read and understood.</li> <li>• Do not breathe dust, fumes, gas, mist, vapours or spray.</li> <li>• Avoid contact during pregnancy and while nursing.</li> <li>• Wash hands thoroughly after handling.</li> <li>• Do not eat, drink or smoke when using this product.</li> <li>• Contaminated work clothing should not be allowed out of the workplace.</li> <li>• Avoid release to the environment.</li> <li>• Wear protective clothing as detailed in Section 8.</li> <li>• Use personal protective equipment as required.</li> <li>• In case of inadequate ventilation wear respiratory protection.</li> </ul>
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<b>Certified handlers:</b>	Not Required
<b>Conditions for safe storage:</b>	<ul style="list-style-type: none"> <li>• Store away from incompatible materials listed in Section 10.</li> <li>• Keep out of reach of children.</li> <li>• Store locked up.</li> <li>• Store in a well-ventilated place. Keep container tightly closed.</li> </ul>

## SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Butylated hydroxytoluene [128-37-0] Propane-1,2-diol, Particulates Only [57-55-6]	-	10	-	-
Propane-1,2-diol, Vapour and Particulates [57-55-6]	150	474	-	-

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 2020 12TH EDITION.

<b>Engineering controls:</b>	Ensure that ventilation maintains dust levels below WES using adequate ventilation.
<b>Personal protection:</b> 	<b>Respiratory protection:</b> Respirator is required. <b>Hand protection:</b> Wear impervious gloves and overalls with long sleeves. <b>Eye protection:</b> Goggles or face shield when mixing and loading.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Pink suspension
<b>Odour</b>	Not available
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	3.9 – 4.3
<b>Boiling Point</b>	Not applicable
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	Not applicable
<b>Flash Point</b>	Not applicable



<b>Flammability</b>	Non flammable
<b>Upper and Lower Explosive Limits</b>	Not applicable
<b>Vapour Pressure</b>	Not applicable
<b>Vapour Density</b>	Not applicable
<b>Specific Gravity</b>	1.00 – 1.20 g/ml
<b>Water Solubility</b>	Not soluble
<b>Partition Coefficient:</b>	Not applicable
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not applicable
<b>Kinematic Viscosity</b>	Not applicable

### SECTION 10: STABILITY AND REACTIVITY

<b>Stability of the substance:</b>	This product is stable under normal conditions.
<b>Conditions to avoid:</b>	None known.
<b>Material to avoid:</b>	None known.
<b>Hazardous decomposition products:</b>	No hazardous products are expected, except when heated to.

### SECTION 11: TOXICOLOGICAL INFORMATION

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

#### **Individual component information:**



### Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Eprinomectin	55mg/kg (rat)	-	-

**Levamisole HCL:** Levamisole is a broad-spectrum anthelmintic with a long history of use in cattle and sheep. It has 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 the 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:** Sodium selenate is acutely toxic [LD50 (oral) 25mg/kg]. Dusts are toxic if inhaled and irritant to eyes. Acute poisoning exhibits as dyspnea, spasms and death from respiratory failure. Selenium poisoning in humans has been described and gastrointestinal and neurological symptoms predominated. Potential mutagen. Repeated dose testing in laboratory species identified a lowest NOAEL of 0.37mg/kg/day (liver toxicity).

**Disodium cobalt EDTA:** Cobalt and cobalt compounds are possible carcinogens. In repeated does studies, cobalt salts have been implicated in cardiac disease (oral doses, LOAEL 0.02mg/kg/d) and cobalt metal dust caused pulmonary toxicity when inhaled (LOAEL 0.02mg/L/d). Cobalt is a known skin and respiratory sensitiser. Cobalt metal fume and dust irritates the respiratory tract. Cobalt metal is irritant to eyes and skin. In a reproductive study in rats, cobalt was embryotoxic when fed at 0.05mg/kg/d throughout the gestation (decreased foetal weight).

## SECTION 12: ENVIRONMENTAL INFORMATION

Very toxic to aquatic life with long lasting effects.  
Hazardous to soil organisms  
Hazardous to terrestrial vertebrates  
Hazardous to terrestrial invertebrates

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available





<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available
<b>Precautions</b>	Do not allow to enter waterways

### Component Data

**Levamisole HCl:** Levamisole is potentially toxic to terrestrial vertebrates based on LD<sub>50</sub> data [LD<sub>50</sub> (oral, rats & mice) = 200-500 mg/kg]. Not toxic to fish or honey bees. Levamisole does not bioaccumulate in biological systems. In soil, levamisole has a half-life of five to seventy five days depending on sunlight, soil type and climatic conditions. Levamisole does not leach in soils and is readily degraded by hydrolysis and microbial action.

**Disodium cobalt EDTA:** Cobalt is toxic to fish and other aquatic life [LC50 (96hr, Trout) 1.406mg/L; EC50 (48hr, Daphnia magna) 1.11mg/L]. Not readily biodegradable, cobalt persists.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Product disposal:</b>	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.
<b>Precautions:</b>	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, Rail, Sea and Air Transport

<b>UN No</b>	3082
<b>Class - Primary</b>	9
<b>Packing Group</b>	III
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S
<b>Marine Pollutant</b>	Yes



<b>Special Provisions</b>	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.
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## SECTION 15: REGULATORY INFORMATION

<b>Regulatory status:</b>	Veterinary Medicines (Non-Dispersive Closed System Application) – HSR100758
<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
<b>Certified Handler</b>	Not required
<b>Location Certificate</b>	Not required
<b>Tracking Trigger Quantities</b>	Not required
<b>Signage Trigger Quantities</b>	100L
<b>Emergency Response Plan</b>	100L
<b>Secondary Containment</b>	100L
<b>HSNO Additional Controls (Restrictions of use)</b>	
	None
<b>ACVM Approval No:</b>	A11937

## SECTION 16: OTHER INFORMATION

Glossary

CAT Category

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 2020 12<sup>th</sup> 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.

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