SAFETY DATA SHEET

According to
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

Section 1. Identification of the material and the supplier

Product:	**Feracol (Cholecalciferol Paste)**
Product Use:	Vertebrate Toxic Agent for use as per label instructions.
Restriction of Use:	Refer to Section 15
New Zealand Supplier:	**Connovation Limited**
Address:	36 B Sir William Drive East Tamaki, Auckland PO Box 58613 Botany, Auckland, 2163
Telephone:	+64 9 273 4333
Fax:	+64 9 374 4334
Emergency No:	**0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	1 November 2024

Section 2. Hazards Identification

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

EPA Approval No: HSR001598

Pictograms

Signal Word: **Warning**

GHS Classification and Category	Hazard Code	Hazard Statement
Reproductive toxicity Cat. 2	H361	May cause damage to organs (blood and hematopoietic system) through prolonged or repeated exposure.
Designed for biocidal action		Designed for biocidal action.

Prevention Code	Prevention Statement
P103	Read carefully and follow all instructions.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P281	Use personal protective equipment as required.

Response Code	Response Statement
P308 + P313	IF exposed or concerned: 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 Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Cholecalciferol	0.80	67-97-0
Other ingredients	>99	Proprietary

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — Flood eye gently with clean fresh running water. Continue rinsing for at least 15 minutes. Take care not to rinse contaminated water into a non-affected eye. Remove contact lenses, if present and easy to do after first 5 minutes then continue rinsing. Use anti-histamine eye drops. Obtain medical advice if irritation occurs.

If on Skin — Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.

If Swallowed — Obtain medical attention if ingested.
Rinse mouth with water. Do NOT induce vomiting.
Do not give anything by mouth to an unconscious person.

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. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: May cause damage to organs (blood and hematopoietic system) through prolonged or repeated exposure.

Notes to Doctor: Product contains Cholecalciferol (Vitamin D3)

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from products	Avoid breathing smoke.
Suitable Extinguishing media	Water spray, foam, CO2 or dry chemical appropriate to surrounding materials.
Precautions for firefighters and special protective clothing	Wear self-contained breathing apparatus and personal protection clothing.
HAZCHEM CODE	**None allocated**

Section 6. Accidental Release Measures

Wear protective gear as detailed in Section 8. Evacuate all unnecessary personnel.

Do not allow to contaminate watercourses or the ground.

Contain spill. Keep dry. Sweep up and transfer to suitable labeled container for re-use if suitable (unbroken, dry) or for disposal. In event of major spill, inform Fire Service via 111 and then local Health Protection Officer at the Public Health Unit or hospital . Dispose of as hazardous waste to an approved waste management company in accordance with local regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Correct dispensing into bait stations and bait laying procedures are required.
- Refer to product label for use and application.
- Wear gloves when handling.

Precautions for Storage:

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in tightly closed original container and secure (locked up) at room temperature out of reach of children and domestic animals.

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. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 13TH EDITION.

Engineering Controls
None set.

Personal Protective Equipment

Eyes	Not required.
Hands	Impervious rubber or neoprene gloves.
Respiratory	Not specific recommendation. Not expected as exposure risk.
General	Wash hands after use and before eating.

Section 9 Physical and Chemical Properties

Appearance	Grainy paste
Colour	Blue
Odour	Not available
Odour Threshold	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not flammable
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Not available
Conditions to Avoid	No data available.
Incompatible Materials	No data available.
Hazardous Decomposition Products	No specific hazardous compounds identified.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not classified. Cholecalciferol ingested in large amounts causes elevated levels of calcium in the blood. Delayed symptoms include anorexia, lassitude, nausea, vomiting, diarrhoea, profuse sweating, headache and extreme thirst.
Dermal	Not classified.
Inhalation	Not classified.
Eye	Not classified. Grainy components in the paste may result in irritation and redness if they contaminate the eye.
Skin	Not classified.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Cholecalciferol suspected of damaging fertility or the unborn child. Repeated or prolonged exposure by ingestion may cause damage to blood and hematopoietic system.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.

STOT/SE	Not applicable.
STOT/RE	Not applicable.

Individual component information:
Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Cholecalciferol	Rabbit 9.0mg/kg b.w. Possum 16.8mg/kg b.w. Norway rat 42.5mg/kg b.w. Mouse 43.6mg/kg b.w. Dog 2 - 80mg/kg b.w.	-	-

Other information:

Persons with hypocalcaemia may have medical condition aggravated by exposure to cholecalciferol.

Section 12. Ecotoxicological Information

Designed for biocidal action.

Ecotoxicity
Avoid exposure to non-target species including domestic pets. If poisoning is suspected of domestic animals or livestock, consult a veterinarian immediately. Avoid placing near waterways.

Active Ingredient is Cholecalciferol Vitamin D3

General
If the animal is asymptomatic and there is no contraindication for emetics use apomorphine (dogs) or Xylanize (cats) or other acceptable emetic. Administer large quantities of fluid and electrolytes (no calcium) by mouth or intra venous (saline solution) with an appropriate diuretic like Frusemide. Give activated charcoal over several days to assist in removal of cholecalciferol and metabolites. Patient should be placed on a low calcium diet. Exposure to sunlight should be avoided.

Dogs: Amorphine may be effective as an emetic. Alternatively, sodium carbonate (washing soda), zinc sulphate, or other emetics may be used. If syrup of Ipecac (7%) is used, the recommended dose is 1-2ml/kg of body weight up to a maximum of 15ml. This may be repeated once if a lower dose is used.
Cats: Xylazine is used at a dose of 1 mg/kg of body weight intra muscular. Xylazine can be reversed with Yohimbine 0.1mg/kg of bodyweight intra venous. Alternatively use 5ml, 3% hydrogen peroxide per 4.5kg of body weight given one or two times. Hydrogen peroxide is most effective if given after a small meal. If syrup of Ipecac (7%) is used, the dose is 3.3ml/kg of body weight (2-6ml) (DO NOT REPEAT).

Please use veterinary discretion when choosing which of the following drugs to use:

Frusemide (1mg/kg TID). This inhibits calcium re-absorption by the kidney. Caution- the patient must first be rehydrated prior to Frusemide or dehydration may worsen.

Activated Charcoal. Administer over several days to remove cholecalciferol and metabolites from the serum. Activated charcoal may cause constipation so initially it is recommended to use AC plus Sorbitol (e.g. Carbosorb) but avoid repeated use of Sorbitol or electrolyte imbalances may occur. Do not use oils concurrently with AC.
Prednisone. (1-2mg/kg BID). This decreases gut absorption, promotes calcium excretion by the kidneys and may inhibit release of calcium in the bones.

Phosphate Binders. (Amphojel). May be beneficial if concurrent hypophosphatemia especially to decrease Ca and P.

Calcitonin. This is recommended by the manufacturer but see Pamidronate, as it appears to be more effective. It inhibits osteoclastic bone resorbtion and has a calciuria effect. The effect is short term. If serum levels are high, salmon calcitonin has been used as a treatment for hypocalcaemia to help bring down serum calcium levels. The dose is 4-6 iu/kg by subcutaneous injection (every 6-8 hours) until serum calcium levels stabilize.
Pamidronate Disodium. (1.3-2mg/kg of body weight). This is a bisphosphonate compound that lowers serum calcium and is used when normal treatment with fluid and diuretics fail to lower serum calcium. It is administered diluted in saline and given over two hours IV. The patient should remain on IV saline until the calcium levels are normalized. Monitor the calcium levels daily for up to 96 hours. One re-treatment may be indicated 5-7 days after the first Pamidronate treatment.

*Treatment with activated charcoal, diuretics and corticosteroids, monitor serum calcium daily. Administer other treatments if serum calcium levels do not normalize.

Persistence and degradability	No specific product information available. However no components have been identified as being persistent in the environment.
Bioaccumulation	No data available.
Mobility in Soil	No data available.
Other adverse effects	Environmental Exposure Standards No EEL has been set for this substance.

Section 13. Disposal Considerations

Disposal Method:
Dispose of product (pellets) and waste as hazardous materials by burying with organic matter on active tip face of managed landfill, or bury with biologically active layer of soil in landfill, in accordance with Regional Authority or local Council bylaws. Ensure to dispose of empty containers safely to an approved landfill.

Precautions or methods to avoid: Avoid unintended release to the environment. Do not use empty containers for storing other products.

Section 14 Transport Information

his product is NOT classified as a Dangerous Good for transport in NZ ; NZS 5433:2020

Section 15 Regulatory Information

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

EPA Approval Code: HSR001598

Refer to www.epa.govt.co.nz for full control document

HSW (HS) Regulations 2017 and EPA Notices	**Trigger Quantity**
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	Not required
Emergency Response Plan	Not required
Secondary Containment	Not required
Restrictions of Use	

77A - Permissions - requirements relating to permissions from the Authority under section 95A of the HSNO Act 1996	No person may apply or otherwise use this substance on land administered or managed by the Department of Conservation unless the person first obtains a Permission under section 95A of the Act from the Authority.
77A - Vertebrate toxic agent - formulation change notification	Variation: Any changes to the composition or proposed use of this substance must be notified to the Authority in writing before the substance is used. The notification should include the following information, as applicable: (a) the name of substance and HSNO approval number; (b) details of the original formulation; (c) details of the revised formulation clearly identifying the changed ingredients, their function in the bait, and their concentration and CAS number if appropriate; (d) the physical form, if different from the original; (e) bait colour; (f) changes in bait size; (g) the intended use(s) of the substance (to include target species, method(s) of release); (h) change in food bait where the substance requires mixing with bait prior to use; (i) the physical properties of the substance (for example, flashpoint, pH) if different from the original; (j) the impurity profile and source of the 'active' ingredient, if different from the original; (k) any information on the effect that the formulation change may have on the risk profile of the substance, including the results of any palatability or field trials undertaken on both target and non-target species.

ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	V009263

Section 16 Other Information

Glossary

Cat	Category
EC_{50}	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
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

References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices APRIL 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

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

Issue Date: 1 November 2024 Review Date: 1 November 2029