

SAFETY DATA SHEET

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

Section 1. Identification of the material and the supplier

Product: **Feratox for control of Bennett's Wallabies**
 Product Use: Vertebrate Toxic Agent for use in bait stations or bait devices 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
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Emergency No: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 19 April 2023

Section 2. Hazards Identification

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

EPA Approval No: HSR001673

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Acute oral toxicity Cat. 2	H300	Fatal if swallowed.
Acute dermal toxicity Cat. 2	H310	Fatal in contact with skin.
Skin sensitisation Cat. 1	H317	May cause an allergic skin reaction.
Reproductive toxicity Cat. 2	H361	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity – repeated exposure Cat. 2	H373	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage Cat. 1	H318	Causes serious eye damage.
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	H421	Hazardous to soil organisms

Hazardous to terrestrial vertebrates	H431	Hazardous to terrestrial vertebrates
Hazardous to terrestrial invertebrates	H441	Hazardous to terrestrial invertebrates

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
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.
P260	Do not breathe dust.
P262	Do not get in eyes, on skin, or on clothing.
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P361	Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P350	IF ON SKIN: Gently 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.

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	% Weight	CAS NUMBER.
Potassium Cyanide	47.5	151-50-8
Other ingredients (including filler, encapsulating compounds, coating, colourant)	>52.5	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 Remove any contaminated clothing. Wash affected area thoroughly with running water for 20 minutes to ensure all product is removed. Launder decontaminated clothing immediately (and separate to household laundry) before re-use or discard safely.

If Swallowed Obtain immediate medical attention if ingested. Call 111 FOR AMBULANCE AND USE KEYWORDS 'Cyanide Poisoning'. Use emergency blanket to protect patient from heat loss. A doctor can slowly administer 50 ml 25% sodium thiosulphate intravenously if indicated (patient unconscious or incoherent, breathing irregular, possibly vomiting and/or with convulsions). If person is losing consciousness after ingestion, or is unconscious or convulsing, then do NOT give anything by mouth. Rinse mouth thoroughly with water. Do NOT give anything to drink. Do NOT induce vomiting. If vomiting occurs naturally, rinse mouth thoroughly again with water. If patient is conscious, breathing regularly and able to say what has happened, keep under observation. Get medical assistance. Do NOT use mouth to mouth or mouth to nose resuscitation, but instead use a suitable device or apparatus to give artificial respiration if breathing has stopped. Administer oxygen if breathing is shallow or irregular and cardiopulmonary resuscitation (CPR) if heart has stopped.

If Inhaled If person has inhaled cyanide, and same hazard exists, then ensure precautions taken to avoid exposure to yourself. Refer to advice given for if swallowed. Rinse mouth thoroughly with water. Do NOT give anything to drink. Do NOT induce vomiting. If vomiting occurs naturally, rinse mouth thoroughly again with water. If patient is conscious, breathing regularly and able to say what has happened, keep under observation. Get medical assistance. Do NOT use mouth to mouth or mouth to nose resuscitation, but instead use a suitable device or apparatus to give artificial respiration if breathing has stopped. Administer oxygen if breathing is shallow or irregular and cardiopulmonary resuscitation (CPR) if heart has stopped.

Most important symptoms and effects, both acute and delayed

Symptoms:

Ingestion: Fatal if swallowed.

Inhalation: Not applicable.

Skin: Fatal in contact with skin. May cause an allergic skin reaction.

Eye: Causes severe eye damage.

Chronic: Suspected of damaging fertility or the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Notes to Doctor: Product contains cyanide.

If indicated, slowly inject 50 ml 25% sodium thiosulphate intravenously and administer oxygen.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from products	Avoid breathing smoke. Combustion products include hydrogen cyanide, carbon monoxide, carbon dioxide, nitrogen oxides and ammonia.
Suitable Extinguishing media	Water spray, or alkali power only. Do NOT use acidic foam or powder or CO2 extinguishers.
Precautions for firefighters and	Wear self-contained breathing apparatus and personal protection clothing (gas tight suit, helmet).

special protective clothing	
HAZCHEM CODE	2X

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. Do not allow pellets to contaminate watercourses or the ground. Wear personal protective equipment and 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 as per Section 13.

Section 7. Handling and Storage
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Precautions for Handling:

- Keep out of reach of children.
- Read carefully and follow all instructions.
- Must be under the control of a Certified Handler/controlled substance licence holder and records must be kept for tracking of product.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Do not get in eyes, on skin, or on clothing.
- 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.
- Refer to product label for use and application.
- During bait preparation, bait deployment, bait retrieval or opening sealed containers that hold Feratox, do not handle or consume food, drink or smoke.
- After handling and before meals, rest breaks, smoking and at the completion of work, remove protective clothing. Wash hands and any exposed skin thoroughly with soap and water, or wipes.

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) in a cool dry place out of reach of children and pets and away from any food, drink and animal foodstuffs.
- Do not store with Class 1 (Explosives), 3 (Flammables), 5.1 (Oxidisers), 5.2 (Organic Peroxide Oxidizers), or 8 (Corrosive) products.

Section 8 Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Cyanides, as CN [151-50-8]	-	5	-	-

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

Engineering Controls

None set.

Personal Protective Equipment



Eyes	Wear safety glasses.
Hands	Wear impervious chemical resistant gloves.
Skin	Overalls work outside boots. After use, wash protective equipment including the inside of gloves. Dry before use.
Respiratory	Multi-gas respirator kit 97000 series (half mask) is required for bait retrieval.
General	Wash hands after use and before eating.

Personal Protective Equipment (PPE)					Comments
Safety equipment	Non-porous gloves	Safety glasses	Multi-gas respirator kit 97000 series (half mask)	Trousers outside boots, or gaiters	
Bait Preparation					
Feratox® in Ferafeed paste	Recommended	Not required	Not required	Not required	Wearing gloves minimises risk of moisture transfer from hands to Feratox® pellet
Deployment in field					
Feratox® and Ferafeed paste	Recommended	Not required	Not required	Not required	
Feratox® and Ferafeed pellets	Recommended	Not required	Not required	Recommended	
Bait retrieval: broken or possibly degrading Feratox® pellets					
Bury Feratox® pellets on site	Required	Not required	Recommended	Recommended	
Placement of Feratox® in sealed container	Required	Recommended	Required	Recommended	
Opening sealed container that contains retrieved baits	Required	Recommended	Required	Required	Always open any sealed container in a well ventilated area. DO NOT breathe any fumes

					that may have accumulated in sealed container.
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Section 9 Physical and Chemical Properties

Appearance	Hard round pellet, ~7.5 - 8mm diameter
Colour	Green
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
Density @ 20°C	Not available
Water Solubility	Not available
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
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	Keep dry. Avoid contact with moisture, water, acidic conditions.
Incompatible Materials	Acids, acid salts, strong oxidising compounds, carbon dioxide, water.
Hazardous Decomposition Products	Not known to occur.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Fatal if swallowed when pellets damaged/broken or cracked in the mouth. Pellets swallowed whole may pass through digestive system unbroken. Symptoms of poisoning include difficulty breathing (dyspnea), rapid breathing (tachypnea), nausea, dizziness, vomiting, headache, sweating and convulsions.
Dermal	Fatal if in contact with skin. Unbroken, dry pellets are safe to handle. Broken or decomposing pellets if contacting skin may sting especially if skin has cuts or abrasions. If the potassium cyanide pellet core contacts skin, then burns/ulceration might result so it is important to immediately wash any contaminated skin.

Inhalation	Not classified. Not an expected exposure route unless damp or decomposing with risk of release of hydrogen cyanide gas. For symptoms of exposure, refer to Ingestion.
Eye	Causes severe eye damage. If pellets broken and core exposed symptoms could include stinging, burning, extreme redness, tearing and dizziness. Flushing eye promptly with water is required to avoid ill-effects.
Skin	May cause an allergic skin reaction.

Chronic Effects:

Carcinogenicity	Not classified.
Reproductive Toxicity	Suspected of damaging fertility or the unborn child. Exposure by oral route can damage organs/systems; affects ability of cells to transfer oxygen.
Germ Cell Mutagenicity	Not classified.
Aspiration	Not classified.
STOT/SE	Not classified.
STOT/RE	May cause damage to organs through prolonged or repeated exposure.
Other health effects information	The potassium cyanide active ingredient is encapsulated in a hard inert coating so provide protection from incidental contact. Ill-effects require the pellet to be broken or decomposing. Exposure to moisture/water will cause decomposition. This is accelerated under acidic conditions.

Individual component information:

Acute Toxicity:

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Potassium cyanide	5 mg/kg (rabbit) In humans, ingestion of 200 to 300 mg cyanide by an adult can result in unconsciousness and death.	13.3 – 33.3 mg/kg (Rabbit)	0.015 mg/L/4hr (Rat)

Section 12. Ecotoxicological Information

Toxicity to aquatic organisms

The product has identified as being very toxic in the aquatic environment with long lasting effects.

Toxicity to terrestrial vertebrates

The product has identified as being very toxic to terrestrial vertebrates. Product is registered as a Vertebrate Toxic Agent for possum.

Toxicity to terrestrial invertebrates

The product has identified as being very toxic to terrestrial invertebrates.

Toxicity to soil organisms

Hazardous to soil organisms

Ecotoxicity

Product is a Vertebrate Toxic Agent (VTA) so there is potential for harm to non-target terrestrial vertebrates. Avoid exposure to non-target species including domestic pets. If poisoning is suspected of domestic animals or livestock, consult a veterinarian immediately. Advice to Veterinarians Product is a Vertebrate Toxic Agent (VTA) so there is potential for harm to non-target terrestrial vertebrates. Avoid exposure to non-target species including domestic pets. If poisoning is suspected of domestic animals or livestock, consult a veterinarian immediately.

Active Ingredient is Potassium cyanide

Product Name: Feratox 475g/kg
Date of SDS: 19 April 2023

Prepared by: Technical Compliance Consultants (NZ) Ltd
Tel: 64 9 475 5240 www.techcomp.co.nz

General

Symptoms are generalized and include frothing at the mouth, slobbering, increased respiratory rate, mouth breathing, rapid but weak heart rate, and muscle twitching. Mucous membranes are bright red, indicating the lack of oxygen transfer throughout the body that is necessary for survival at the cellular level. Death from respiratory paralysis occurs during severe convulsions. The heart continues to beat for several minutes after struggling ceases and breathing stops. Bright red blood often comes out of the nostrils and mouth.

Treatment

Administration of an IV solution of sodium thiosulfate, or sodium nitrite and sodium thiosulfate to "neutralise" the production of hydrocyanic acid may be appropriate. Note clinical signs of cyanide poisoning and nitrate poisoning are similar. Ensure nitrate poisoning is not cause first. Blood from nitrate poisoning will be chocolate brown compared to cherry red for cyanide poisoning.

Persistence and degradability	Pellets will breakdown when it becomes wet. The potassium cyanide will react to liberate hydrogen cyanide gas which will dissipate into the atmosphere. Pellets will degrade more rapidly in contact with mist acidic conditions.
Bioaccumulation	No data available.
Mobility	Pellets will breakdown within hours of becoming wet. The potassium cyanide in the core of the pellet is soluble in water.
Other adverse effects	Threshold Effects Level TEL water Cyanides as CN, 0.08 mg/L TEL air Cyanides as CN, 0.009mg/m3 Environmental Exposure Standards EEL freshwater 18 µg/L EEL marine 14 µg/L

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

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road, Rail, Sea and Air Transport

UN No	2588
Class - Primary	6.1
Packing Group	II
Proper Shipping Name	PESTICIDE, TOXIC, SOLID, N.O.S (CONTAINS 47.5% POTASSIUM CYANIDE)
Marine Pollutant	YES
Special Provisions	If the product's individual container is below 500g, 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

Section 15 Regulatory Information

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

EPA Approval Code: HSR001673

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

HSW (HS) Regulations 2017 and EPA Notices		Trigger Quantity
Certified Handler		Any
Location Certificate		250kg
Tracking Trigger Quantities		Any
Signage Trigger Quantities		100kg
Emergency Response Plan		100kg
Secondary Containment		100kg
Restrictions of Use		
77A – Permissions – requirements relating to permissions from the Authority under section 95A of the HSNO Act 1996	<p>1.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.</p> <p>2. No person may apply or otherwise use this substance in a catchment area from which water is drawn for human consumption, or in any other area where a risk to public health may be created, if the substance is applied or used, unless the person first obtains a Permission under section 95A of the Act from the Authority.</p>	
77A – Vertebrate toxic agent – formulation change notification	<p>Variation:</p> <p>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:</p> <p>(a) the name of substance and HSNO approval number;</p> <p>(b) details of the original formulation;</p> <p>(c) details of the revised formulation clearly identifying the changed ingredients, their function in the bait, and their concentration and CAS number if appropriate;</p> <p>(d) the physical form, if different from the original;</p> <p>(e) bait colour;</p> <p>(f) changes in bait size;</p> <p>(g) the intended use(s) of the substance (to include target species, method(s) of release);</p> <p>(h) change in food bait where the substance requires mixing with bait prior to use;</p> <p>(i) the physical properties of the substance (for example, flashpoint, pH) if different from the original;</p> <p>(j) the impurity profile and source of the 'active' ingredient, if different from the original;</p> <p>(k) any information on the effect that the formulation</p>	

	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.
77A - Environmental Exposure Limits (EEL)	An EELfreshwater has been set for cyanide. The EEL value is 18 µg/L.An EELmarine has been set for cyanide. The EEL value is 14 µg/L.
77A - Tolerable Exposure Limits (TEL)	A TELwater has been set for cyanide. The TEL value is 0.08 mg/L.A TELair has been set for cyanide. The TEL value is 0.009 mg/m3.
77A - Vertebrate toxic agent - spillage reporting requirements	<p>Variation:</p> <p>If this substance is applied other than in the intended application area, or is lost or spilt, the person who is in possession of the substance at the time that it was misapplied, lost, or spilt must report the nature and quantity of the substance within 24 hours of the substance being misapplied, lost, or spilt to—</p> <p>(a) if a Permission was granted to apply or otherwise use the substance, the person who granted the Permission; and</p> <p>(b) the officer in charge of the nearest police station to which the person has access; and</p> <p>(c) the nearest Medical Officer of Health or the Medical Officer of Health in whose region the substance was misapplied, lost, or spilt; and</p> <p>(d) each owner or occupier of land on which the substance may have been misapplied, lost, or spilt; and</p> <p>(e) the person on whose behalf the substance is being applied.</p>
Property Controls	
HPC Notice Part 4 Subpart B - Use of ecotoxic substances in any place	<p>Variation:</p> <p>In accordance with clause 56(1)(c) of the Hazardous Property Controls Notice, the Authority has specified that this substance must only be applied by ground-based application methods.</p> <p>Contained ground-based application means application of a hazardous substance—</p> <p>(a) in a bait station, or bait bag, or other container that is fixed to an object; or</p> <p>(b) so that it is contained in some other way, such as in a pipe or burrow.</p>

ACVM Act and Regulations	
ACVM Approval No See www.foodsafety.govt.nz for registration controls	V009566

Section 16	Other Information
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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: 19 April 2023 Review Date: 19 April 2028