



SAFETY DATA SHEET

Feratox Pellets and Feratox in Paste.

Revised 09/02/2009

1. Identification of the Material and the Supplier.
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Product Name	Feratox 475g/kg
Article Number	FTOX
Other Names	Potassium Cyanide
Product Uses	Vertebrate Pest Control (Possums)
Company Name	Connovation Limited
Address	36B Sir William Avenue East Tamaki Manukau 2013 New Zealand
Telephone number	(09) 273-4333
Fax Number	(09) 374-4334
Website	www.connovation.co.nz
Emergency Telephone	0800- 764-766
National Poisons Centre	(03) 479-7248

2. Hazards Identification.

HAZARDOUS SUBSTANCE AND DANGEROUS GOODS

Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
 Classified as a Dangerous Goods according to NZS 5433.
 Environmental Risk Management Authority Classifications.

Feratox Pellets		
Class 6 Toxicity	6.1B	Acutely Toxic.
	6.3B	Skin Irritant
	6.4A	Eye Irritant.
	6.5B	Sensitization.
	6.8B	Reproductive/ Developmental.
	6.9A	Target Organ Systemic.
Class 9 Ecotoxicity	9.1A	Aquatic.
	9.2A	Soil.
	9.3A	Terrestrial Vertebrate.
	9.4A	Terrestrial Invertebrate.
Feratox in Paste (Reduced Hazard)		
Class 6 Toxicity	6.1C	Acutely Toxic.
	6.8B	Reproductive/ Developmental.
	6.9B	Target Organ Systemic Toxicant.
Class 9 Ecotoxicity	9.1D	Aquatic.
	9.2D	Soil.
	9.3A	Terrestrial Vertebrate.
	9.4A	Terrestrial Invertebrate.

Risk Phrases For Core Material	R26 -	Very Toxic by inhalation.
	R27 -	Very Toxic in contact with skin.
	R28 -	Very Toxic if swallowed.
	R32 -	Contact with acids liberates very toxic gas.
	R34 -	Causes burns.
	R50/53	Very toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.
Safety Phrases For Core Material	S1/2 -	Keep locked up and out of reach of children.
	S7 -	Keep container tightly closed
	S22 -	Do not breathe dust
	S28 -	After skin contact, wash immediately with plenty of water.
	S29 -	Do not empty into drains
	S36 -	Wear suitable protective clothing
	S37 -	Wear suitable gloves
	S39 -	Wear eye/face protection
	S45 -	In case of accident or if you feel unwell, seek medical advice immediately.
	S60 -	This material and/or container must be disposed of as hazardous waste.

3. Composition/Information on Ingredients.

Ingredient Common Name	Potassium Cyanide
CAS Number	151-50-8
% by weight	47.5%
Chemical Name	Potassium Cyanide.
Molecular Weight	65.119
U.N. Number	1680
Other ingredients to 100% are not classified as hazardous	

4. First Aid Measures.

Ingestion	<p>If the victim is losing consciousness after ingestion of cyanide and is unconscious or convulsing, DO NOT give anything by mouth. Have the victim rinse mouth thoroughly with water. DO NOT induce vomiting. If vomiting occurs naturally, rinse mouth thoroughly with water.</p> <p>Break open an Amyl Nitrite vial to aid recovery. NO mouth to mouth or mouth to nose resuscitation, 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 the heart has stopped.</p>
Inhalation	<p>If the victim has inhaled cyanide dust, take proper precautions to ensure your own safety before attempting rescue, such as wearing appropriate protective equipment and using the 'buddy system'. Move the victim from the endangered area to fresh air if this can be done safely. Remove any contaminated clothing. Break open an Amyl Nitrite vial to aid recovery. NO mouth to mouth or mouth to nose resuscitation, use a suitable device or apparatus to give artificial respiration if breathing has stopped. Administer oxygen if breathing has is shallow or irregular and cardiopulmonary resuscitation (CPR) if the heart has stopped</p>
Skin Contact	<p>Avoid any skin contact with the core material. If skin becomes contaminated, flush the contaminated area with lukewarm water for 20 minutes under running water. Immediately remove all contaminated clothing. Decontaminate all contaminated articles before reuse or discard safely.</p>
Eye Contact	<p>Immediately flush the contaminated eye(s) with lukewarm flowing water for at least 15 minutes. Take care not to rinse contaminated water into a non affected eye. Use anti-histamine eye drops.</p>
Medical Attention and	OBTAIN IMMEDIATE MEDICAL ATTENTION.

Other Special Treatment	Immediately call an Ambulance, using keywords 'Cyanide Poisoning'. Prepare the patient against heat loss using an emergency blanket. A Doctor can slowly administer 50ml 25% Sodium Thiosulphate intravenously if indicated.
Mild Poisoning.	(Patient is conscious, breathing regularly and is able to say what has happened.) Keep the patient under observation for some time. No specific antidote is required break open an Amyl Nitrite Vial to aid recovery if necessary, administer oxygen if condition worsens.
Serious Poisoning.	(Patient is unconscious or incoherent; breathing is irregular possible vomiting and/or convulsions). Slowly inject 50ml 25% Sodium Thiosulphate intravenously, administer oxygen.
Very Serious Poisoning.	(Patient is unconscious, convulsing and/or vomiting. Dyspnea, breathing and/or heart has stopped). Slowly inject 50ml 25% Sodium Thiosulphate intravenously. Apply artificial aspiration and/or CPR.

5. Fire Fighting Measures.

For major fires call the Fire Brigade without delay. Ensure that an escape path is available from any fire.

Type of Hazard In the case of fire combustion products include Hydrogen Cyanide Gas, carbon monoxide, carbon dioxide, nitrogen oxides and ammonia. To minimize hazards, move product containers from the fire area if possible.

Fire Hazard Properties	Flashpoint	Not Applicable
	Upper Flammable Limit	Not Applicable
	Lower Flammable Limit	Not Applicable
	Auto-ignition Temperature	Not Applicable
	Flammability Classification	Non combustible material but releases flammable vapours.
	Flame Propagation Rate	Not Applicable
	Dust Explosion Potential	Not Applicable
	Fast Burning Characteristics	Not Applicable
	Release of Vapours	Releases flammable vapours.

Suitable Extinguishing Use alkali powder if possible and water only if **Media** absolutely necessary. If water is used ensure that extinguishing water does not enter drainage systems or soil. Contaminated water must be decontaminated in accordance with regulations issued by the appropriate local authorities. DO NOT use acidic foam or powder or Carbon Dioxide extinguishers

HazChem Code 4XE
Equipment for Fire Chemical exposure risk exists that can only be **Fighters** managed by a gas tight suit. Fire Fighters should wear

- A gas tight suit
- Self contained breathing apparatus.
- Helmet
- Protective underclothes

6. Accidental Release Measures.
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Methods for Containment Pick up any spilt, undamaged pellets and return to **and Clean-up** the original container if they are not wet. Scoop up any broken pellets and place in a sealable container for disposal, avoid creating dust. Prevent product from entering waterways, DO NOT wash away with water. Dispose of as per section 13 of this SDS.

Personal Safety Precautions Avoid skin contact, wear protective clothing when cleaning up spills.

7. Handling and Storage.

Safe Handling The Active Ingredient is encapsulated in a hard inert coating and packaged in bottles or boxes providing ample protection and safety from mechanical shock likely to be encountered during normal handling and storage situations. DO NOT repack into other containers for storage. DO

NOT store with Class 1, 3, 5.1, or 8 products, foodstuffs or foodstuff packaging. Ensure appropriate equipment is available for emergency use. Ensure staff is trained in safe handling and emergency procedures. Ensure that "cyanide first aid kits" are available, and that the kit contains Amyl Nitrite Vials.

Safe Storage

An Approved Handler Certificate showing Class 6.1B and Class 9A is required to be responsible for the storage of this product. Store in the original container tightly secured, in a cool, dry area out of direct sunlight. Store under lock and key and away from foodstuffs and incompatible materials such as acids, oxidizing agents and water. Keep out of reach of children and domestic animals. Post appropriate signage on the storage area.

8. Exposure Controls/Personal Protection.

National Exposure Standards

for Cyanide
TEL water (Cyanides, as CN) = 0.08mg/litre
TEL air (Cyanides, as CN) = 0.009mg/m³
WES (Cyanides, as CN) = 5mg/m³ TWA
EEL freshwater = 18µg/Litre
EEL marine = 14µg/Litre

Engineering Controls

Exercise awareness, as for any toxic substance. Maintain a clean and tidy workplace at all times.

Personal Protective Equipment

Respiratory Protection.

No respiratory protection is required unless dealing with broken or decomposing pellets when a respirator is required

Body Protection

Wear protective clothing such as overalls and boots when applying this product.

Hand Protection

Hand protection is not required unless dealing with broken or decomposing pellets when non porous gloves are required.

Eye Protection

Eye protection is not required unless dealing with broken or decomposing pellets when protective glasses or goggles are required

General

Always wash hands after handling pellets before eating, drinking, smoking or chewing.

9. Physical and Chemical Properties.

Appearance

A hard green pellet approximately 7mm in diameter. Each pellet will contain a lethal dose for a possum. The pellet consists of an outer coating containing non toxic feed material attractive to possums and an inner 'core' of Potassium Cyanide which is poisonous.

Odour

Slightly sweetish, no odour of cyanide.

pH

Not Applicable

Vapour Pressure

Not Applicable

Vapour Density

Not Applicable

Boiling Point

Not Applicable

Solubility

Outer coating is soluble in water and will wash away revealing the Encapsulating coat.

Encapsulating coat is insoluble in water but if broken will expose the poisonous core material.

Specific Gravity

Core material is Potassium Cyanide which is soluble in water, 72g/100grams at 25° C

Flash Point

Not Applicable

Not Applicable

Lower Flammability Limit	Not Applicable
Upper Flammability Limit	Not Applicable
Auto Ignition Temperature	Not Applicable

10. Stability and Reactivity.

Chemical Stability	Stable and safe unless the encapsulating coat is broken or has decayed and core material is released.
Incompatible Materials	<ul style="list-style-type: none"> • Acids and acid salts (toxic and flammable Hydrogen Cyanide is released when in contact with core material. • Strong Oxidizing Agents. (Nitrates, peroxides, chlorates) can cause violent or explosive reactions with core material • Carbon Dioxide (reacts with core material to produce Hydrogen Cyanide gas) • Water (reacts with core material slowly to produce Hydrogen Cyanide gas)
Hazardous Decomposition Products	Ammonia, potassium hydroxide
Polymerization	Does not occur.
Conditions to Avoid	Do not store this product with foodstuffs or food containers.

11. Toxicological Information.

Toxicity Data	LD50 In humans	Oral Rat 7.49 mg/kg 200 – 300mg of cyanide can result in unconsciousness and death.
Routes of Exposure	Ingestion of pellets, inhalation, skin contact, eye contact with core material.	
Health Effects from Likely Routes of Exposure	<p>Ingestion Can be fatal if pellets are cracked in the mouth; pellets swallowed whole may pass through the system unbroken. Signs of poisoning include dyspnea, tachypnea, nausea, dizziness, vomiting, headache, sweating, and convulsions.</p> <p>Inhalation This can only happen when pellets are broken to expose core material or wet and decomposing releasing hydrogen cyanide gas. Signs of poisoning include dizziness, headache, nausea, weakness and vomiting.</p> <p>Eye Contact This can only happen if pellets are broken to expose the core material. Symptoms include stinging, burning, extreme redness, watering, and dizziness.</p> <p>Skin Contact Unbroken, dry pellets are safe to handle. Broken or decomposing pellets in contact with the skin can sting, especially in cuts or abrasions. Caustic burns are likely if core material is not promptly removed from the skin.</p>	
Medical Conditions Aggravated by:	Cyanosis	
Exposure	No data available.	
Carcinogenicity	No data available.	
Reproductive Effects	No data available.	
Teratogenic Effects	No data available.	
Organ Toxicity	No data available.	

12. Ecological Information

Ecotoxicity

Environmental Exposure Limits:

TEL water (Cyanides, as CN) = 0.08mg/litre
TEL air (Cyanides, as CN) = 0.009mg/m³
WES (Cyanides, as CN) = 5mg/m³ TWA
EEL freshwater = 18µg/Litre
EEL marine = 14µg/Litre

Effects on Aquatic Organisms. Very harmful to aquatic organisms. Marine pollutant, avoid contamination of any waterways with pellets or containers.

Persistence/Degradability

Pellets will breakdown within days of becoming completely wet. The Potassium Cyanide in the core will react to liberate Hydrogen Cyanide gas which will dissipate into the atmosphere where it is further degraded into non toxic molecules.

13. Disposal Considerations.

Disposal Methods and

Feratox pellets are degraded by water. Product **Containers** which is surplus or spoiled should be disposed of by burying with other organic material on the active tip face of an appropriately managed landfill or buried with the biologically active layer of soil elsewhere within a secure area. Ensure that a good covering of earth is applied over the bait immediately to prevent access. Alternatively burn unwanted bait material in a suitably constructed and appropriately located incinerator and bury any residues as above. Burn or bury as containers above. DO NOT use the containers for any other purpose.

Special Precautions for Landfill or incineration

Disposal of baits in a designated landfill must be in accordance with regulations applicable to Class 6 substances. Refer to the ERMA User Guide to HSNO Regulations for more information.

14. Transport Information.

UN Number	1680
Proper Shipping Name	Potassium Cyanide.
Dangerous Goods Class	6.1
HazChem Code	4XE
Packing Group	II

15. Regulatory Information.

HSNO Approval Code	For Pellets HSR001673 For Pellets in Paste HSR7628
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ACVM Registration Number	V04713
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16 Other Information.

The information contained in this Safety Data Sheet is provided in good faith and is believed to be accurate at the date of issue. Connovation makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this Safety Data Sheet. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used. Please read the label before using this product