1. Identification of the Material and the Supplier.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Feratox 475g/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article Number</td>
<td>FTOX</td>
</tr>
<tr>
<td>Other Names</td>
<td>Potassium Cyanide</td>
</tr>
<tr>
<td>Product Uses</td>
<td>Vertebrate Pest Control (Possums)</td>
</tr>
<tr>
<td>Company Name</td>
<td>Connovation Limited</td>
</tr>
<tr>
<td>Address</td>
<td>36B Sir William Avenue</td>
</tr>
<tr>
<td></td>
<td>East Tamaki</td>
</tr>
<tr>
<td></td>
<td>Auckland, New Zealand</td>
</tr>
<tr>
<td>Telephone number</td>
<td>(09) 273-4333</td>
</tr>
<tr>
<td>Fax Number</td>
<td>(09) 374-4334</td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.connovation.co.nz">www.connovation.co.nz</a></td>
</tr>
<tr>
<td>Emergency Telephone</td>
<td>0800- 764-766</td>
</tr>
<tr>
<td>National Poisons Centre</td>
<td>(03) 479-7248</td>
</tr>
</tbody>
</table>

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, 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
SAFETY DATA SHEET.

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.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Common Name</th>
<th>CAS Number</th>
<th>% by weight</th>
<th>Chemical Name</th>
<th>Molecular Weight</th>
<th>U.N. Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium</td>
<td>Cyanide</td>
<td>151-50-8</td>
<td>47.5%</td>
<td>Potassium Cyanide</td>
<td>65.119</td>
<td>1680</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Other ingredients to 100% are not classified as hazardous

4. First Aid Measures.

Ingestion

If the victim is loosing 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.

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.

Inhalation

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.

Skin Contact

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.

Eye Contact

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 antihistamine eye drops.

Medical Attention and Other Special Treatment

**OBTAIN IMMEDIATE MEDICAL ATTENTION.**

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.

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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 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.

Equipment for Fire  
• A gas tight suit  
• Self contained breathing apparatus.  
• Helmet  
• Protective underclothes


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 are 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.

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### 8. Exposure Controls/Personal Protection.

<table>
<thead>
<tr>
<th>National Exposure Standards</th>
<th>for Cyanide</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEL water (Cyanides, as CN)</td>
<td>0.08mg/litre</td>
</tr>
<tr>
<td>TEL air  (Cyanides, as CN)</td>
<td>0.009mg/m³</td>
</tr>
<tr>
<td>WES (Cyanides, as CN)</td>
<td>5mg/m³ TWA</td>
</tr>
<tr>
<td>EEL freshwater</td>
<td>18µg/Litre</td>
</tr>
<tr>
<td>EEL marine</td>
<td>14µg/Litre</td>
</tr>
</tbody>
</table>

**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.


**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.

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

**Specific Gravity**

Not Applicable

**Flash Point**

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**
- Acids and acid salts (toxic and flammable Hydrogen Cyanide is released when in contact with core material).
- Strong Oxidizing Agents. (Nitrites, 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 Oral Rat: 7.49 mg/kg
- In humans: 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**

**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.

**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.

**Eye Contact**
This can only happen if pellets are broken to expose the core material. Symptoms include stinging, burning, extreme redness, watering, and dizziness.

**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.

**Medical Conditions Aggravated by:**
- Cyanosis
- No data available.
- No data available.
- No data available.
- 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.


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

ACVM Registration Number V04713

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

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