1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>0.2% 1080 PELLETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>1080 pellets</td>
</tr>
<tr>
<td>Supplier:</td>
<td>Animal Control Products Ltd trading as Orillion</td>
</tr>
<tr>
<td>Street address:</td>
<td>Physical address: 408 Heads Road, Whanganui 4501, New Zealand.</td>
</tr>
<tr>
<td>Postal address:</td>
<td>Postal address: Private Bag 3018, Whanganui 4541, New Zealand.</td>
</tr>
<tr>
<td>Telephone:</td>
<td>+64 (0) 6 344 5302</td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.pestoff.co.nz">www.pestoff.co.nz</a></td>
</tr>
<tr>
<td>After hours telephone numbers:</td>
<td>021 919 624</td>
</tr>
</tbody>
</table>

ACCIDENTAL HUMAN POISONING
National Poisons Centre: Dial 111 and be ready to provide information from the product label to medical personnel.
Free phone 0800 764 766

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>0.2% 1080 PELLETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>1080 pellets</td>
</tr>
<tr>
<td>Active Ingredient:</td>
<td>Sodium fluoroacetate 0.04% - 0.2%</td>
</tr>
<tr>
<td>Other Ingredients:</td>
<td>Cereals, sugars and binders</td>
</tr>
<tr>
<td>Active Cas Number:</td>
<td>62-74-48</td>
</tr>
<tr>
<td>Molecular Weight of Active:</td>
<td>100.02</td>
</tr>
<tr>
<td>Molecular Formula of Active:</td>
<td>F C H$_2$ CO$_2$ Na</td>
</tr>
<tr>
<td>Recommended Use:</td>
<td>Pelletised bait for the control of wallabies</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Cylindrical green pellets.</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: This product contains a DEADLY POISON.

HSNO Approval Code: HSR002424

HAZARD CLASSES: 6.1B, 6.8A, 9.1D, 9.3A

HAZARD IDENTIFIERS:
- Secondary Identifiers - Acutely toxic. May be fatal if swallowed, inhaled or absorbed through the skin. Repeated oral exposure may cause reproductive or developmental damage. When handling open containers or baits, wear protective equipment as indicated below.
- Toxic to terrestrial vertebrates. Take measures to reduce the risk of non-target animals being exposed to the toxin either through eating baits or by scavenging the carcasses of poisoned animals. Harmful to aquatic organisms. Manage bait application rates carefully and comply with any restrictions imposed on placing baits over or near waterways. Avoid pollution of any water supply with pellets or used container.

DANGEROUS GOODS CLASS: 6.1B (Packaging Group II)
GENERAL REQUIREMENTS: Deadly Poison. Subject to tracking requirements for individual packs. Available for purchase and use only by holders of Controlled Substances Licenses. This substance must be under the control of an Approved Handler for Class 6 and Class 9 Hazardous substances at all times unless being transported by a transport operator with a Dangerous Goods License endorsement.

SYMPTOMS OF POISONING:

Early Symptoms: Nausea, vomiting, tingling and numbness in face and hands, stomach pains, apprehension and anxiety.

Later Symptoms: Muscular twitching, blurred vision, mental confusion.

Severe Symptoms: Coma, convulsions.

4. FIRST AID MEASURES

Ingestion: Seek immediate medical assistance in all cases where poisoning is suspected. National Poisons Centre recommends against inducing vomiting in most cases but in particular, never use any chemical means of inducing vomiting. In areas remote from medical assistance, there may be benefit in inducing vomiting by placing a finger down the throat.

Eye Contact: Wash eyes with copious amounts of water.

Skin Contact: Wash exposed area thoroughly with soap and water, then rinse.

Contaminated Clothing: Remove contaminated clothing and wash daily before re-use. Wear rubber gloves, overalls and secure footwear when handling 1080 pellets. Check boots and the pockets of protective clothing for dust, fragments and pellets. Do not eat, drink or smoke. Clothing and gloves must be decontaminated by washing in hot soapy water. Ensure pellets are not trampled off site.

Do NOT induce vomiting or give anything by mouth if patient is unconscious or convulsing.

PROMPT MEDICAL TREATMENT IS ESSENTIAL. CALL FOR IMMEDIATE ASSISTANCE.

5. FIRE FIGHTING MEASURES

Hazchem 2XE. Emergency firefighting response for fires in enclosed spaces by should be undertaken only by trained professionals using SCBA.

For small fires in well ventilated areas, the low rate of combustion achievable, the low concentration of toxin in the bait and the effect of ingress of fresh air through convection and circulation, will result in the dilution of gases to a level unlikely to cause harm where normal precautions are taken. 1080 pellets have a low combustibility risk and have a limited ability to sustain fire unless burned in the presence of other more flammable material. The evacuation of adjacent and downwind premises within 200 metres of the fire should be considered in the case of large fires involving 1080 pellets.

6. ACCIDENTAL RELEASE MEASURES

In the event of major spills, inform the Fire Service immediately via the 111 emergency phone service, then advise local health protection officers at your District Health Board or hospital.

Isolate the spill area and exclude all bystanders. Take all practicable steps to manage any harmful effects of a spillage including preventing baits from entering streams or waterways. Scoop spilled pellets into secure containers. Recover any undamaged bait for later use by placing in appropriately labeled containers and dispose of spoiled bait as directed below. Use a broom to collect fine material and wash down the spill area with copious water only after all spilled bait has been removed. Give consideration to possible hazards arising from washing down and ensure people, pets, livestock, wildlife and fish will not be exposed to the toxic run-off.
7. HANDLING AND STORAGE

When handling open containers or baits, wear overalls worn outside rubber boots, and impervious rubber or PVC gloves. When loading aircraft or working in windy conditions, wear goggles and a dust mask as protection against dust entering the eyes or mouth. Do not eat, drink or smoke when using the product or handling open containers. Wash protective clothing and equipment daily after work. Remove protective clothing and wash hands and exposed skin thoroughly before meals and after any contact.

Store in original container, tightly closed, under lock and key and away from feed or foodstuffs. Keep out of reach of children. As far as practicable, eliminate flammable materials and ignition sources from storage areas. Do not store in direct or diffused sunlight. The storage facility must be secure, dry and will preferably be insulated to buffer the effect of ambient temperature changes likely to cause condensation forming inside packaging.

This product must always be under the control of an approved handler who holds a current test certificate endorsed for Class 6 and Class 9 substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits: Ministry of Health exposure limit set February 2002 is 0.015 micrograms of 1080 per ml in urine.

Tolerable Exposure Limits (TEL) : The NZ Environmental Protection Agency has prescribed the TEL\textsuperscript{water} for sodium fluoroacetate, expressed as the amount of sodium fluoroacetate per volume of water as 0.0035 milligrams per litre of water (0.00000035\%).

Engineering Measures: Decontaminants are water (dilution), heat > 120˚C (denaturing) and microbial decomposition (degradation).

Personal Protection Equipment: Operators using or handling the product in open containers must wear gloves, overalls and waterproof boots. Do not smoke, drink or eat while handling the product. Wash hands, face and any exposed areas after use. Wash protective equipment immediately after use or otherwise isolate and containerise for return to a washing facility. When working around aircraft, wear a suitable dust mask to prevent inhalation of airborne particles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: 1080 pellets in have a cylindrical form, are dyed green and may have an odour of cinnamon, fruit flavouring or fish.

<table>
<thead>
<tr>
<th>Solubility in Water (g/L)</th>
<th>Pellets will eventually lose their form and disintegrate if immersed in water for several hours or more.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition Point (°C)</td>
<td>The active ingredient 1080 becomes unstable at 110 degrees Celsius and decomposes at 200 degrees Celsius.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

1080 pellets are stable and non-reactive under normal storage and use conditions.

11. TOXICOLOGICAL INFORMATION

Exposure must be kept to an absolute minimum. Sodium fluoroacetate may be absorbed through the eyes, broken skin or via the mouth. It is estimated that a lethal dose of bait for an adult human could be as little as 30 grams where the bait contains 0.15% 1080. A small dog may receive a lethal dose of 1080 from as little as 0.5 grams of bait containing 0.15% 1080.

TOXICITY DATA FOR THE ACTIVE INGREDIENT - VARIOUS SPECIES* 

| White laboratory rat (oral) LD\textsubscript{50} | 0.2 mg/kg B/W (Body Weight) |
| Brush-tailed possum (oral) LD\textsubscript{50} | 0.3 – 1.0 mg/kg B/W |
| Dog (oral) LD\textsubscript{50} | 0.1 – 0.35 mg/kg B/W |
12. ECOLOGICAL INFORMATION

Use the pellets only for the purpose indicated and in the manner prescribed by the label. Sodium fluoroacetate may be present for many months in the carcasses of poisoned animals; thus presenting a secondary poisoning danger to carnivorous birds and mammals. Take steps to mitigate any potential non-target exposure by wildlife or domestic animals. Studies have shown that 1080 concentrations will decline within rotting carcasses through microbial degradation.

1080 wastes are ecotoxic. Improper disposal of excess pesticide is unlawful. If wastes cannot be disposed of by use according to label instructions, contact local Regional Council or a hazardous waste advisor for guidance.

13. DISPOSAL CONSIDERATIONS

The active ingredient sodium fluoroacetate is degraded through microbial activity and will decompose at temperatures above 200 degrees Celsius. It dilutes readily in water.

Bait 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 within 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 by scavenging birds. Avoid deep disposal or burying where groundwater contamination may occur.

Treating the baits through a sewage oxidation facility or other chemical treatment facility is also an acceptable means of disposing of unwanted bait material where this is allowed by local by-laws and regulations.

It is possible to burn unwanted 1080 pellets in a properly constructed and appropriately located incinerator but this will normally require other, more combustible material to be burned with the pellets. Any residues taken from the incinerator should be buried as above.

Do not use the empty container for any other purpose. Paper and polypropylene bags may be burned in a suitable location or buried in an approved landfill. Polypropylene when burnt, emits carbon dioxide, carbon monoxide and water but as there are no chlorines or organo-chlorines present, dioxins are not produced during combustion. Non-halogen containing polymers including polyethylene, polypropylene, polybutene, polystyrene, polymethyl methacrylate and polyvinyl acetate do not produce dioxins or furans. The burning of any chlorine or organo-chlorine based product must be avoided (e.g. PVC).

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Proper Shipping Name:</th>
<th>Pesticide, solid, toxic, n.o.s. [contains Sodium fluoroacetate]</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.N. NO.</td>
<td>2588</td>
</tr>
<tr>
<td>Class:</td>
<td>6.1</td>
</tr>
<tr>
<td>Packaging Group /Hazchem code</td>
<td>2XE</td>
</tr>
</tbody>
</table>

Maximum transport quantity as tools of trade: 50 kilograms
(Placarding and DG documents not required but this Safety Data Sheet must be carried.)

15. REGULATORY INFORMATION

Deadly poison:. Available only to holders of Controlled Substances Licenses or persons licensed to transport dangerous goods. Label directions are mandatory. Registered Pesticides:

Cat (oral) LD$_{50}$  0.35 mg/kg B/W
Bennett’s wallaby (oral) LD$_{50}$  0.2 mg/kg B/W
Mule deer (oral) LD$_{50}$  1.0 mg/kg B/W
Mouse (oral) LD$_{50}$  5.0 – 19.3 mg/kg B/W
Human (oral) LD$_{50}$ (estimated)  0.7 – 2.1 mg/kg B/W (30g-100g of bait for 70kg human)

* Data from US Department of the Interior, Biological Report No. 27 (1995); Ronald Eisler “Sodium monofluoroacetate (1080) Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review”
0.2% 1080 PELLETS – V002538. HSNO Approval HSR002424

Packaging approvals: The packaging for these products has been tested and complies with the UN convention for transportation of dangerous goods and with HSNO controls and variations stipulated under the 1080 re-assessment decision arising from application HRE05002 and released on 10 August 2007.

16. OTHER INFORMATION

SPECIAL PRECAUTIONS & OTHER COMMENTS:

Although 1080 pellets present a relatively low risk of accidental poisoning during bait handling, loading and application by trained, certified operators, it is recommended as a precaution that operators carry communication tools for obtaining urgent medical advice and calling for assistance when using 1080 poison. Communication systems should be tested for functionality and coverage before commencing operations.

May be fatal if swallowed. Wear waterproof gloves and overalls when using 1080. Wash hands after handling pellets, equipment or animals that have been contaminated with 1080. Do not use poisoned or contaminated animals for food or feed.

This product is toxic to wildlife. Although pellet baits are not readily taken by native birds and mammals, those feeding on carcasses of contaminated animals may be fatally poisoned. Take measures, where practical and necessary, to minimise harmful effects on aquatic environments and desirable species. Apply the product only as specified by label directions and according to the conditions of any consents required.

Dehydrated carcasses may remain dangerous to dogs or cats for an indefinite period. A single mouse poisoned by 1080 may contain enough poison to kill an adult dog.

CONSULT NEAREST POISON CONTROL CENTER FOR CURRENT INFORMATION.

All information contained in this Data Sheet is as accurate and up-to-date as possible. Since Orillion cannot anticipate or control the conditions under which this information may be used, each user should review the information in the specific context of the intended application.

Revised by: AD Courtney
Date of Revision: 15 March 2019