

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **1080 Bait for the Control of Wild Dogs**

Recommended use: **Meat bait for the control of wild dogs.**

Restrictions apply to the placement of baits. This product must be used in accordance with the label instructions and the South Australian Government document entitled *Directions for Use South Australia*.

Note: Restricted chemical product – only to be supplied to or used by an authorised person.

Supplier details:

Supplier name:
Natural Resources Management Board

Address:

Telephone number:

Emergency telephone number: Poisons Information Centre 13 11 26 (24 hours)

2. HAZARDS IDENTIFICATION

Hazard classification: Not classified as a HAZARDOUS SUBSTANCE according to the criteria of the National Occupational Health & Safety Commission (NOHSC).

Not classified as DANGEROUS GOODS according to the Australian Dangerous Goods Code (7th edition) Sections 3.1.3.1 (c) & 3.1.3.3.

Risk phrases: None.

Safety phrases: None.

Poisons schedule number: **S7**

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Chemical name	Common name	CAS No	Proportion, (w/w)
Sodium fluoroacetate	Ten-eighty ("1080")	62-74-8	0.04 g/kg (0.004%) (6mg per bait)
Other ingredients (fresh meat, water & vegetable dye) not determined to be hazardous.		Not applicable	up to 100%

4. FIRST AID MEASURES

- First aid:** Immediate treatment is of the utmost urgency. If poisoning occurs, contact a doctor or Poisons Information Centre. Phone 13 11 26 from anywhere in Australia. If possible have this MSDS or product label with you.
- Inhalation:** Remove to fresh air. Apply artificial respiration if not breathing but protect against self-contamination using a mask. Apply CPR if necessary until medical help arrives.
- Skin:** Rescue personnel should avoid direct contact with contaminated skin, clothing and vomitus.
If product on skin, immediately remove contaminated clothing and wash skin thoroughly with copious quantities of soap and water. Remove from contaminated area. Seek medical attention if feeling unwell.
- Eyes:** If in eyes, hold eyes open, flood with water for at least 15 minutes and seek medical attention.
- Ingestion:** Do NOT induce vomiting. Seek immediate medical attention.
- Advice to doctor:** This product contains 0.004% (w/w) sodium fluoroacetate in a meat bait. There is no antidote for 1080 poisoning. It is important to ascertain the route of exposure and the quantity of bait the person has been exposed to. Sodium fluoroacetate is readily absorbed by the oral route and acts after metabolic conversion to fluorocitrate by blocking enzymes in the tricarboxylic acid cycle inhibiting cellular metabolism. Organs with high energy demands such as heart and brain are most affected. Early symptoms may include nausea, vomiting, stomach pains, tingling of the nose, numbness of the face, and nervousness. More severe symptoms include convulsions, laboured breathing, excitability, hallucinations, and heart attack.
Treat symptomatically and supportively.
Activated charcoal (0.5 – 1.0 g/kg body weight) as an aqueous suspension may be considered. This should only be administered after consultation with a clinical toxicologist from the Poisons Information Centre. Seizures may be treated with Diazepam IV, and calcium gluconate or calcium chloride may be administered parenterally to patients with documented hypocalcaemia.

5. FIRE FIGHTING MEASURES

- Fire & explosion hazards:** There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.
- Suitable extinguishing media:** Not applicable as product is non combustible. Use media suited to materials that are burning.
- Hazards from combustion:** None applicable - this product is more than 99% meat. The small quantity of poison in the meat is unlikely to provide decomposition products in significant quantities.
- Special protective equipment:** Personal Protective Equipment including respirator with air purifying filter, safety boots, non-flammable overalls, chemical impervious gloves, hat and preferably, goggles.
- Hazchem code:** Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Spills: Prevent spillage from entering drains or water courses with bunding or drain covers. If a significant quantity of material enters drains, advise emergency services. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. While wearing chemical impervious gloves, clean up split bait using a broom, rake and/or shovel and placed in sealable, labelled container. Triple rinse and bury rinsate, empty containers and bait for disposal in a local authority landfill. If no landfill is available, bury containers below 0.5m in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Burning of empty containers can only be done in accordance with State legislation. Do NOT re-use containers for any other purpose. Sodium fluoroacetate is readily degraded by common soil bacteria and fungi. Wash contaminated areas with soapy water and bury rinsate from washed areas. After clean up, decontaminate and launder all protective clothing and equipment before storing and re-using.

7. HANDLING AND STORAGE

Precautions for safe handling: This product has no UN classification but is a S7 Poison. Follow Directions for Use on the label. Use in a well ventilated area. Avoid contact with the product and wear suitable protective clothing and chemical impervious gloves when risk of exposure occurs. When handling, DO NOT eat, drink or smoke. Keep container firmly closed when not in use. Keep locked up and out of reach of children. In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label or this MSDS where possible).

Conditions for safe storage: Safe storage is the responsibility of all persons who are supplied with this poison. The product must be stored in the closed original labelled container in a dry, cool well-ventilated area out of direct sunlight. Store in a locked room away from children, animals, food, feedstuffs, seed and fertilisers at all times, except when required for use. Protect containers against physical damage and check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National exposure standards: There is no dust associated with this meat based product. However, the Time Weighted Average (TWA) established for sodium fluoroacetate powder is $0.05\text{mg}/\text{m}^3$ and the corresponding Short Term Exposure Limit (STEL) level is $0.15\text{mg}/\text{m}^3$. There should be at least 60 minutes between successive exposures at the STEL. Avoid direct contact with skin.

Biological limit values: No biological limit allocated.

Engineering controls: The product is a meat based bait containing a very low concentration of active which considerably reduces the risk compared with that from handling sodium fluoroacetate powder.

Personal protective equipment: Very dangerous. Poisonous if swallowed. When opening the container and using the product wear chemical impervious gloves.

MATERIAL SAFETY DATA SHEET

Product: 1080 Stock Solution

For help in selecting suitable equipment, consult AS 2161. Protective eyewear is not normally necessary when using this product. However, it is always prudent to use protective eyewear. Consult AS1336 and AS/NZS 1337 for advice on Industrial Eye Protection. Wearing safety boots is advisable when handling this product. Consult AS/NZS2210 for advice on Occupational Protective Footwear.

After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance:</u>	Has the appearance of chunks of meat.
<u>Odour:</u>	Has the odour of meat.
<u>Vapour pressure:</u>	Not applicable.
<u>Boiling point & vapour pressure:</u>	Not applicable.
<u>Solubility in water:</u>	Active ingredient is soluble in water but meat carrier is not.
<u>Specific gravity:</u>	Not applicable.
<u>Flammability limits:</u>	Not applicable.

10. STABILITY AND REACTIVITY

<u>Chemical stability:</u>	Stable for extended periods under normal storage and handling conditions.
<u>Conditions to avoid:</u>	Avoid exposure to heat, sunlight and moisture during storage.
<u>Incompatible materials:</u>	None applicable.
<u>Hazardous decomposition products:</u>	This product is more than 99% meat. The small quantity of active in the meat is unlikely to provide decomposition products in significant quantities.
<u>Hazardous reactions:</u>	No specific data.

11. TOXICOLOGICAL INFORMATION

<u>Acute toxicity:</u>	Based on the lowest known lethal dose for humans (0.71 mg/kg bw), a 10 kg child or an 80 kg adult would have to consume approximately 1 and 9 whole fresh baits, respectively at one time to receive a lethal dose. Lower doses are still likely to be lethal to some people. There will be a period of latency between ingestion and onset of symptoms of between 30 minutes and 3 hours. The onset of symptoms is insidious with apprehension, hallucinations, tingling of the nose and twitching and numbness of the face. Other neurological effects include convulsion, respiratory depression, tremulousness and coma. Cardiac effects include hypertension then hypotension, arrhythmias, ventricular fibrillation and cardiac failure which can lead to death.
<u>Acute health effects:</u>	
<u>Ingestion:</u>	Very poisonous if swallowed. Lethal doses can cause cardiac arrest and death.
<u>Inhaled:</u>	Not applicable to this formulation. There is no inhalation risk with this product under normal circumstances.

MATERIAL SAFETY DATA SHEET

Product: 1080 Stock Solution

Skin: Avoid contact with skin. Studies with rabbits in the USA have shown that 1080 is absorbed poorly through the skin but appropriate controls to minimise skin exposure are required

Eye: Avoid contact with eyes. Effects not known.

Chronic toxicity: No specific data is available for chronic exposure to the product in humans though long term exposure at high doses may lead to cardiac, kidney and/or testicular damage. Studies into the effects of chronic (90 day) exposure in rats have found damage to the heart, and in males the testis, at a dose of 0.25mg/kg/day. Some of this damage may be reversible over time when exposure is removed.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Sodium fluoroacetate is toxic to a range of aquatic organisms and very toxic to most terrestrial fauna. However, it is rapidly diluted in water and readily degraded by common soil microorganisms such as bacteria and fungi once in moist ground.

Do not contaminate streams, rivers or waterways with this product or used containers. Information on non-target animal distribution, conservation status, habitat preference, diet, tolerance to 1080, body weight and size of home range can be used to reduce poisoning risks. Time baiting programs when non-target species are least active or least susceptible. Follow label directions to minimise risks to non-target animals.

Persistence and degradability: The product is biologically degradable and will not accumulate in soil or water.

13. DISPOSAL CONSIDERATIONS

Disposal methods and containers: Incinerate or bury excess product below 0.5 m. Triple rinse or pressure rinse containers before disposal. Break, crush or puncture and dispose of empty rinsed containers in a local authority landfill. If no landfill is available, bury the containers below 0.5 m in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Burning of empty containers or contaminated material can only be done in accordance with State legislation. Do NOT reuse containers for any other purpose.

14. TRANSPORT INFORMATION

This product is not classified as dangerous goods according to the Australian Dangerous Goods Code (7th Edition) Section 3.1.3.1 (c) & 3.1.3.3.

UN number: Not applicable.

UN proper shipping name: Not applicable.

Dangerous Goods Class: Not applicable.

Subsidiary Risk: Not applicable.

Packing group: Not applicable.

Special precautions for user: Product should not be stored in cabin of vehicle during transport.

Hazchem code: Not applicable.

15. REGULATORY INFORMATION

Poison Schedule: S7

15. OTHER INFORMATION

Date of Preparation of this MSDS: February, 2010

The information provided in this MSDS has been prepared in accordance with the National Code of Practice for the Preparation of Material Safety Data Sheets, 2nd Edition, [NOHSC:2011(2003)] using the following references:

Approved Criteria For Classifying Hazardous Substances [NOHSC:1008(2004)] 3rd Edition (October 2004).

Australian Dangerous Goods Code 7th Edition. (2007)

Eason, C. and Turck, P. (2002) A 90-day Toxicological evaluation of compound 1080 (Sodium Monofluoroacetate) in Sprague-Dawley rats, Toxicological Sciences, vol. 69, pp. 439-447.

Fairchild, E.J. (1977). "Registry of Toxic Effects of Chemical Substances" Vol II. p27. (Edited by Dr E.J. Fairchild) U.S. Department of Health, Education and Welfare (N.I.O.S.H.: Cincinnati).

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. No warranty either expressed or implied is provided and nor is responsibility for the accuracy or completeness of the data contained herein. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact NRM Biosecurity Unit, Biosecurity SA, GPO Box 1671, Adelaide, SA 5001, phone 08 8303 9620.