

Drugs and Poisons Fact Sheet: Strychnine Permits - What you need to know

Description:

This document provides advice about the safe use of strychnine, preparation of strychnine baits and strychnine treated cloth for use in lethal traps, the laying and retrieval of baits. It contains the relevant sections of the *Health (Drugs and Poisons) Regulation 1996* (HDPR).

Introduction:

The HDPR provides for the issue of permits which enable persons to obtain, possess and use strychnine. The purchase, possession or use of strychnine without lawful authority is illegal and offenders are liable to prosecution.

This advice is prepared with a view to assisting you to apply for a strychnine permit. Strict adherence to this advice will enable the speedy consideration of your application.

Content:

Please read this information carefully before applying for a strychnine permit

Strychnine is a highly toxic compound which is subject to strict regulatory controls set down in the *Health (Drugs and Poisons) Regulation 1996* (the Regulation). Following is a summary of the sections of the Regulation governing its use and the occupational health and safety requirements necessary to ensure safe use of the substance.

To obtain a Strychnine Permit you must -

- a) be at least 18 years old and competent to use and prepare for use strychnine; and
- b) possess knowledge of:
 - legislation relating to strychnine and vertebrate pest control;
 - the degree of toxicity of strychnine;
 - the effect strychnine may have on the health of persons using it or those around them;
 - adequate personal protection measures; and
 - adequate first aid measures to treat the effects of strychnine.

SAFE USE OF STRYCHNINE

The possible sources routes of absorption of strychnine are:

- ingestion of powder; and
- inhalation of powder.

(A) Safety considerations when preparing baits, laying baits and using treated cloths with traps

- Perform these activities in an open, well ventilated well-ventilated area.
- Keep upwind of powder, where applicable.
- DO NOT SMOKE DURING BAIT PREPARATION.

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- Only personnel directly involved in this process should be in the vicinity of the preparation area. It is essential that children and animals are kept away from the preparation area.
- Wear proper protective clothing including clean overalls or a long shirt and trousers buttoned at the wrists and neck, impervious boots (rubber) and impervious gloves (rubber). Check that there are no holes or cuts in the gloves. Safety glasses, goggles or similar eye protective devices are recommended, where a full-face mask is not used.
- Wear a suitable respirator when handling powder e.g. 2-face rubber cartridge mask with agricultural chemical cartridges.
- Avoid skin contact with strychnine powder - if this occurs, immediately wash skin thoroughly with water.
- If clothing becomes contaminated remove immediately and wash before re-use. Wash separately to other loads of washing.
- Collect or clean up any spillage as soon as it occurs, and bury in a deep pit which will not contaminate ground water supplies.
- Wash all implements thoroughly with water as soon as the bait preparation is finished. Do not wash in sinks that are for general use. Discard solution by burying it in a deep pit.
- Wash the used gloves, boots and facemask thoroughly with water - allow to dry thoroughly. **Note:** Wash the inside of the gloves as well. Discard solution by burying it in a deep pit.
- Wash hands and face thoroughly and change into clean clothing before eating, drinking or smoking.
- Do not store baits near any food or drink items.
- Do not smoke when laying or retrieving baits and handling strychnine treated cloths.

(A) Bait preparation, laying and retrieval of baits

- Strychnine is highly toxic therefore place only very small amounts of strychnine into small pieces of meat. Bait size for foxes/wild dogs should be approximately 250g or the approximate size of a clenched fist. Sixty (60) mg or approximately the equivalent volume of two match heads is the appropriate lethal dose for a wild dog or fox.
- The meat bait is prepared by making a small, deep slit in the bait and inserting the powder deep within the cavity. Close the cut and allow the bait to stand for two hours to enable the cut to partially seal. This will mask the bitter taste of the strychnine and minimise the chance of the animal spitting out the bait material. The placing of strychnine into whole carcasses is a less effective method of baiting. Also, whole carcasses have the potential to be dragged some distance, increasing the risk to non-target species. Hence, this is not recommended. It is better to use whole carcasses as attractants.

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- A minimum of 24 hours notice should be given to every resident and/or occupier of the land whose property boundary adjoins or has frontage to the land whereon poisoned baits are to be laid advising them of the intention to lay baits.
- Transport baits in a stable leak proof container which is located in a safe and secure position on a vehicle.
- Lay down baits as soon as possible - do not carry out other jobs beforehand.
- Place the baits in an area known to be frequented by wild dogs or foxes.
- Don't lay baits adjacent to or near water courses.
- Prepared baits may only be used in the following situations; pre-planted and fallow land, forests, non-agricultural land and pasture.
- Don't use bones for baiting as the strychnine residue may persist in the marrow and bones may be transported or buried, placing non-target species at risk.
- Retrieve the uneaten baits after seven days or when the target animal is killed.
- Keep children and domestic animals (including working dogs) away from baits.
- Baits should be tied to a stake and buried to reduce the risk of losing baits to non-target animals.
- Humanely destroy any affected animals found.

(B) Lethal traps - preparation of strychnine treated cloth used in conjunction with traps and retrieval of the treated cloth

- Lethal traps should only be used in remote areas where it is impracticable to check the trap daily.
- Prepare the treated cloth by cutting either cotton or close weave hessian material (cloth) into strips approximately 40 to 60 mm wide by 200 to 300 mm long.
- Lay 250 mg to 500 mg of strychnine powder in the long centre of the cloth finishing no less than 25 mm from each end. 250 mg is approximately the equivalent volume of eight match heads and 500 mg is approximately equivalent to 16 match heads.
- Carefully fold the cloth so that the strychnine is retained in the long centre of the cloth.
- Place the folded cloth in a sealed leak proof container.
- Set the lethal trap as soon as possible - do not carry out other jobs beforehand.
- Transport strychnine treated cloth in a stable leak proof container which is located in a safe and secure position on a vehicle.
- Prior to setting the lethal trap, wrap the folded cloth to one jaw of the trap and secure the cloth at each end of the jaw using soft tie wire or plastic ties to secure it in place. The cloth is secured only to the jaw held by the trap mechanism (trap dog), not the 'free' jaw. A trapped dog is most likely to bite at the jaw directly in front and on each side of the trapped paw. This method is not the only one used.

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- A minimum of 24 hours notice should be given to every resident and/or occupier of the land whose property boundary adjoins or has frontage to the land whereon the lethal traps are to be set advising them of the intention to set the lethal traps.
- Place the lethal traps in an area known to be frequented by wild dogs or foxes. The lethal traps must be set in a manner that minimises the capture of non-target animals.
- Lethal traps may only be used in the following situations; pre-planted and fallow land, forests, non-agricultural land and pasture.
- Lethal traps should be anchored and the method of anchoring depends on the trap construction.
- Keep children and domestic animals (including working dogs) away from treated strychnine cloths and lethal traps.
- Humanely destroy any affected animals found.

(D) Disposal methods

- Do not use containers which have held strychnine for any other purpose.
- Check there is no leakage of strychnine solution (water used for cleaning) or strychnine contamination in a vehicle. Clean any spillage as soon as it is evident – soak the solution into soil or sawdust and bury by deep burial.
- Dispose of dead target animals, all un-eaten baits, treated cloths and contaminated material such as used containers by deep burial which will not contaminate ground water.

(E) Personal safety and hygiene

- Wash the used gloves (inside as well) and your clothing at completion of the job.
- Wash all used clothing separately to other loads of washing.
- Wash yourself thoroughly at the end of the job and change into clean clothing before eating, drinking or smoking.

ADVERSE EFFECTS

Strychnine is an alkaloid obtained from *Nux vomica* and the seeds of other species of *Strychnos*. It occurs as odourless, translucent, colourless crystalline powder with a very bitter metallic taste. It is soluble in water, alcohol and chloroform, but practically insoluble in ether.

Strychnine and its compounds are extremely toxic. Fatalities have followed ingestion of doses of 10mg and less. Strychnine is readily absorbed from the gastrointestinal tract.

Early signs of poisoning occurring within 15-30 minutes of ingestion include restlessness, apprehension, tremors, slight twitching and muscular stiffness of the face, neck and legs. Painful convulsions develop and may be triggered by minor sensory stimuli. The body becomes arched backwards in hyperextension with the arms and legs extended and the feet turned inward. The

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jaw is rigidly clamped and contraction of the facial muscles produces a characteristic grinning expression. Convulsions may recur, followed by death from respiratory failure (suffocation).

FIRST AID

The *Standard for the Uniform Scheduling of Medicines and Poisons* requires the label on a container of strychnine to have the following first aid statements (to be grouped together and prefaced with the words "FIRST AID"):

- "If poisoning occurs, contact a doctor or Poisons Information Centre. Phone: 131 126.
- Give activated charcoal and keep patient quiet, in a dark place, if possible."
- **If ingested** - SEEK URGENT MEDICAL ADVICE. DO NOT GIVE EMETICS SUCH AS IPECAC SYRUP.
- **If inhaled** - Remove victim to fresh air. Apply artificial respiration if indicated.
- **If in eyes** - Flush eyes with plenty of lukewarm water for at least 15 minutes. Get medical attention if irritation persists.
- **If skin contact**- Immediately remove contaminated clothing and thoroughly wash all affected skin with soap and water.

In rendering any emergency first aid treatment, avoid self-exposure to strychnine. Keep the patient in a quiet dark area if possible. The patient should be kept lying down in a quiet darkened room. To avoid delays in providing medical treatment, the person may need to be transported by car to meet an ambulance. In this instance it is not possible to keep the person in a darkened room. Any unnecessary disturbance, distractions or sensory inputs may provoke seizures. The person should be kept as calm as possible in a darkened part of the car. The person may require cardio-pulmonary resuscitation (CPR). The treatment of strychnine poisoning normally involves the use of activated charcoal to reduce and delay absorption of strychnine.

FIRST AID INFORMATION IS ALWAYS AVAILABLE BY TELEPHONING THE
POISONS INFORMATION CENTRE ON 131 126
THIS IS A 24 HOUR A DAY ALL-YEAR-ROUND INFORMATION SERVICE

STORAGE

Storage requirements for strychnine are covered in section 242(2) of the Regulation. (See "Legal Obligations" section below). Further, the Regulation states:-

Safe keeping of poisons

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(1) A person must not store a poison within reach of children.

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(2) A person must not carry, handle or store a poison in a way that may allow the poison to mix with, or contaminate, food, drink or a condiment or a drug or poison for human or animal use even if the container in which the poison is carried, stored or handled breaks or leaks.

USE AND DISPOSAL OF STRYCHNINE

Strychnine is highly toxic and very poisonous and therefore the following strict method of handling by field operators and landholders is necessary. The Regulation states:-

Unsafe disposal of poisons

290.

- (4) A person must not discharge, place or otherwise dispose of a poison in a way that –
- a) endangers the life or safety of a person or a domestic animal; or
 - b) exposes food, drink or a condiment or another poison or a drug to the risk of contamination by the poison; or
 - c) gives access to the poison to someone not authorised endorsed to possess it.

If no further baiting is required, any remnant quantities of strychnine may be relinquished to the Environmental Health Services of the local Public Health Unit, for the purpose of destruction. To make such arrangements, contact the Environmental Health Services of the local Public Health Unit. Contact details are available on the Queensland Health website available at www.health.qld.gov.au.

LEGAL OBLIGATIONS

Chapter 4 - Poisons - of the Regulation states:-

PART 2 - PERMITS

Division 2 – Strychnine

240A Obtaining, possession or use of strychnine

- (1) A person must not obtain, possess or use strychnine unless the person -
- (a) is authorised endorsed, under this regulation, to obtain, possess or use strychnine;
 - (b) holds a strychnine permit.

(1A)

However, a responsible adult authorised by a person who holds a strychnine permit (the permit holder) may possess or use strychnine under the permit but only-

- (a) in accordance with the conditions of the permit; and
- (b) under the supervision of the permit holder.

(1B)

Without limiting subsection (1A)(a), the responsible adult must possess or use the strychnine in accordance with the conditions stated in section 242(2).

- (2) A person who possesses strychnine under a strychnine permit must not possess more strychnine than the maximum quantity stated in the permit.

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(3) Subsection (1)(b) does not apply to possession of strychnine by a person under section 241(5)(b).

240B Restriction on sale of strychnine

- (1) A person must not -
- (a) sell strychnine to a person unless the person gives the seller a strychnine permit that is in force; or
 - (b) sell to a purchaser more strychnine, in total, than is stated in the permit.
- (2) However, subsection (1)(a) does not apply to a person who is endorsed, under this regulation, to sell strychnine to the following-
- (a) a person who is endorsed, under this regulation, to obtain, possess or use strychnine;
 - (b) another person who is endorsed, under this regulation, to sell strychnine
- (3) The seller must -
- (a) write in the front of the permit -
 - (i) the date the strychnine is sold; and
 - (ii) the quantity of strychnine sold; and
 - (iii) the seller's name and address; and
 - (iv) if the full amount of the strychnine stated in the permit has been sold - the word 'Cancelled'; and
 - (b) sign the permit; and
 - (c) return the permit to the permit holder.
- (4) Despite subsection (3)(a)(iv), the cancellation of the permit only relates to the permit holder's authority endorsement to obtain strychnine."

241 Requirements for strychnine obtained outside the State

- (1) This section applies to a person who obtains strychnine from someone in another State.
- (2) Subsection (3) applies if the person has a strychnine permit for the strychnine before obtaining the strychnine.
- (3) The person must-
- (a) as soon as possible after obtaining the strychnine, attach to the strychnine permit a document evidencing acquisition of the strychnine; and
 - (b) ensure the document remains attached to the strychnine permit while the strychnine permit is in force.
- (4) Subsections (5) and (6) apply if the person-
- (a) does not have a strychnine permit for strychnine before obtaining the strychnine; and
 - (b) has an interstate permit form the other State for the strychnine.
- (5) The person-
- (a) must apply for a strychnine permit as soon as possible after the strychnine comes into the person's possession in the State; and

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- (b) may only possess the strychnine without a strychnine permit for the time reasonably necessary to obtain a strychnine permit.
- (6) Also, the person must-
- (a) as soon as possible after receiving a strychnine permit, attach to it-
 - (i) the interstate permit for the strychnine; and
 - (ii) a document evidencing acquisition of the strychnine; and
 - (b) ensure the interstate permit and the document remain attached to the strychnine permit while the strychnine permit is in force.
- (7) In this section –
interstate permit means a permit or other document issued under a law of another State, equivalent to a strychnine permit.

242. Permit conditions

- (1) A person who is the holder of a strychnine permit, or a responsible adult authorised under section 240A(1A) (each a person in possession), must keep either the permit or a copy of the permit with the person while the person possesses strychnine under the permit.
- (2) Also, the person in possession -
- (a) must keep the strychnine locked in a secure place; and
 - (b) must ensure the key to the place is always in the person's possession or the possession of a responsible adult authorised by the holder; and
 - (c) must not –
 - (i) leave strychnine in a place to which other people have access; or
 - (ii) use strychnine for a purpose not stated in the permit; or
 - (iii) store strychnine at a place not stated in the permit; or
 - (iv) or
 - (v) possess strychnine after the permit expires.

Penalties apply if non-compliance with the Regulation is established and range from a maximum of 40 to 80 penalty units. Currently, a penalty unit is worth \$100.

EXTRA INFORMATION

Fact sheets about pest animal control methods together with pest animal management and control plans are available from Biosecurity Queensland's Department of Primary Industries and Fisheries (DPI&F) website www.dpi.qld.gov.au/home.htm

The New South Wales Department of Primary Industries has useful information about the management and control of pest animals on their website www.dpi.nsw.gov.au