Requirements for possession and use of strychnine for wild dog and fox control in Queensland

Health (Drugs and Poisons) Regulation 1996

November 2014
Requirements for possession and use of Strychnine for wild dog and fox control in Queensland

Published by the State of Queensland (Queensland Health), November 2014

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1. Purpose

This document specifies requirements for Permit Holders authorised to possess and use strychnine for pest animal control under the Health (Drugs and Poison) Regulation 1996.

2. Introduction

Strychnine is a highly hazardous substance and is scheduled as a dangerous poison requiring specific controls under the Standard for Uniform Scheduling of Medicines and Poisons (Poisons Standard) under the Therapeutic Goods Act 1989.

In Queensland, the Health (Drugs and Poisons) Regulation 1996 (HDPR) regulates the possession, use and sale of strychnine. Sections 240A, 240B, 241 and 242 impose conditions and restrictions associated with the possession and use of strychnine for pest animal control. The Land Protection (Pest and Stock Route Management) Act 2002 provides the regulatory framework for the management of pest animals and the approvals for landholder to conduct certain activities such as controlling dogs under certain conditions.

The HDPR restricts the possession and use of strychnine to persons who possess an appropriate strychnine permit. The strychnine permit provides the legal permission for landholders to obtain possess and use strychnine for baiting wild dogs and foxes at a specified location for a specified time. Once a permit expires, the legal permission ceases and any remaining strychnine should be surrendered.

This document applies to all strychnine permit holders within Queensland. It is a condition of the Permit that all of the provisions contained within this document are complied with.

3. About Strychnine

Strychnine is a plant derived poison from the Strychnos nux-vomica, an ever-green tree found in southern Asia (India, Sri Lanka and East Indies) and Australia.

Crystalline strychnine is colourless, odourless and is water soluble. Extreme adverse health effects from exposure (inhalation, ingestion or absorption through eyes or mouth) to very small quantities of poison can occur making it a very effective poison to all who come into contact with it.

Early signs of poisoning occur within 15-30 mins of exposure. Symptoms of poisoning are related to muscle spasms and death results from asphyxia when muscle tire through sheer exhaustion. Recovery from strychnine exposure may be possible if hospital treatment is sought immediately.
4. **Use**

Strychnine must only be used for the land baiting of wild dogs and foxes. Aerial administration of baits containing strychnine is prohibited.

5. **Purchase and Sale**

Strychnine must be obtained from persons licensed to sell Schedule 7 poisons in Queensland or an authorised interstate retailer. The most common place to obtain the strychnine is from a pharmacist who is authorised to sell this poison.

The current permit must be presented to the licensed retailer at the time of purchase of the strychnine and only the quantity stated on the permit or less can be obtained. Strychnine can be purchased in multiple transactions up to the amount specified by the Permit.

It is an offence for permit holders to resell or give away strychnine or baits/lethal traps prepared with strychnine.

6. **Transport**

Strychnine powder is a class 6.1 poison under the Dangerous Goods Code and when it is transported, it must be packaged in a leak proof container and stowed in a vehicle so that it cannot:

- escape the vehicle
- come into contact with food, medicines or other poisons
- be accessed by animals or unauthorised persons.

7. **Storage**

Strychnine powder must be stored only at the location/s specified on the permit and must:

- be under lock and key with the key in possession of the permit holder or an adult authorised by the permit holder
- be in a place where unauthorised persons including children do not have access and
- not be stored in a container that resembles or may be mistaken for, a food container.

8. **Selection of Baiting Medium**

Only fresh boneless meat is permitted to be used for strychnine baits. Carcasses or bones are not permitted for use. This is because strychnine residue may persist in the
marrow and bones which are easily transported away from the baiting site and may be accessed by other animals, placing non-target animals at risk.

9. **Personal Transport of Baits**

Strychnine baits must be transported in a strong leak proof container which is located in a safe and secure position on the vehicle. This container must not be used for any other purpose.

10. **Notification to Neighbours**

A minimum of 72 hours' notice must be given to every resident and/or occupier of the land whose property boundary adjoins or has frontage to the land whereon poisoned baits or lethal traps are to be laid, advising them of the intention to lay baits or lethal traps. Advising neighbours of the intent to bait can be via a telephone conversation or by issuing a Notice of Intent to use Strychnine (Appendix 1). If contact is made via the telephone or face to face, it is advisable to keep details of the contact, i.e. when the contact was made and details of the person spoken to, in case a complaint is made at a later date.

11. **Signage**

During baiting or lethal trapping, warning signage must be displayed at the main entrance of the property and at the entrance nearest to the baiting or lethal trap sites. Signs must indicate the type of poison, the date laid or set and the name and telephone number of the owner/manager of the property where bait(s) or lethal trap(s) have been laid. A template for these signs is included in Appendix 2.

12. **Bait/lethal Trap Placement Restrictions**

Baits/lethal traps must:

- only be used in pre-planted and fallow land, forests, non-agricultural land and pasture
- be laid as soon as possible after preparation – do not carry out other jobs beforehand
- only be placed in an area known to be frequented by wild dogs or foxes
- not exceed 5 baits per hectare, where applicable and
- must not occur within the following minimum distance requirements unless authorised by specific conditions under the permit.
13. **Bait Preparation**

**Safety requirements**

The MSDS contains information on safety and handling, first aid and spills information. All safety and exposure controls contained in Material Safety Data Sheet (MSDS) must be complied with (see Appendix 3). Further, children or animals must not be permitted to enter the bait/cloth preparation area.

Users must:

- Wear proper protective clothing including clean overalls or a long shirt and trousers buttoned at the wrist and neck, impervious boots (rubber) and impervious gloves. Check that there are no holes or cuts in the gloves.
- Wear safety glasses or similar eye protective devices if a full face mask is not used.
- Wash all implements thoroughly with water as soon as bait preparation is finished. Refer to section 19 for disposal advice on waste water.
- Do not wash implements in sink that is used for general use.
- Wash used gloves (inside and out), boots and face mask thoroughly in water and allow to dry. Dispose of waste water as per section 19.
- Wash hands and face after preparation and cleaning.
- Change into clean clothes before eating or drinking.

If poisoning occurs, speed in treatment is essential and hospitalisation is likely to be needed. If poisoning occurs contact a doctor or the Poisons Information Centre.
immediately on 13 11 26. Other first aid details are contained in the MSDS in Appendix 3.

**Preparation of meat baits**

The following procedure must be undertaken during the preparation of baits. The permit holder must:

- prepare each bait using approximately a 250 g piece of boneless meat
- make a small cut down the centre of the bait with a sharp knife and place 60mg of strychnine in the centre of the bait
- place the strychnine well inside the bait
- close the cut and allow the bait to stand for two hours to enable the cut to partially seal
- prepare sufficient baits for immediate use only.

**Preparation of lethal traps**

The following procedure must be undertaken during the preparation of lethal traps. The permit holder must:

- prepare the treated cloth by cutting either cotton or close weave hessian material into strips approximately 50mm wide by 200mm long
- lay a maximum of 100mg of strychnine powder in the long centre of the strip finishing no less than 25mm from each end
- carefully fold the cloth so that the strychnine is retained in the centre
- place the folded cloth in a sealed leak proof container.

### 14. Laying of Baits

Strychnine permit holders must:

- only place baits on the property location detailed on the permit
- use gloves and other personal protective equipment such as tongs must be used to avoid contact with poisonous baits
- ensure that the baits are tied or buried to prevent the removal by non-target animals
- avoid smoking or eating during the laying, retrieving or handling baits.

### 15. Laying of Lethal Traps

Strychnine permit holders must ensure that lethal traps are:

- only placed at the property location/s detailed on the permit
• handled when appropriate personal protective equipment is in use and smoking and eating are avoided
• used in a manner that prevents the capture of non-target animals
• anchored appropriately depending on the trap construction.

Note: 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. Alternatively, a strip of hessian approximately 4-6 cm wide and 20-30 cm long should be wound around the trap jaw, impregnated with a maximum of 100mg strychnine powder and secured to the jaw with wire.

16. Disposal of Baits and Containers or Spills

Disposal of the following must be by deep burial:
• Containers
• Uneaten baits or part thereof
• Treated cloths
• Dead target animals
• Any other contaminated material
• Any non-target animals* (refer to incident reporting)
• Any spilt poison or object that has been contaminated as a result of a spill that cannot be thoroughly cleaned.

Containers which have been used for the preparation of strychnine baits must not be used for any other purpose. Disposal site and depth should not compromise water sources.

17. Contaminated Clothing

If clothes become contaminated, remove immediately and wash separately before being used.

18. Bait Retrieval

Baits must be retrieved after 7 days or when the target animal has been killed.

19. Disposal of Waste Water

Rinse water from cleaning utensils/bait preparation equipment or PPE must not be disposed in such a way that it endangers the life and safety of a person or animal or contaminates food or water.
20. **Surrender of Unused Quantities of Strychnine**

Once the permit expires, it is illegal to retain any unused strychnine. Contact your nearest Public Health Unit to obtain information on how the strychnine can be surrendered. [http://www.health.qld.gov.au/cho/default.asp](http://www.health.qld.gov.au/cho/default.asp)

21. **Adverse Event Reporting**

Queensland Health must be advised of the following situations:

- any poisoning or suspected poisoning involving a human immediately
- any poisoning or suspected poisoning of a domestic animal within three days
- any potential contamination of agricultural land or livestock immediately.

Appendices
Appendix 1

Notice of intent to use strychnine

Date: 

To: 

As a neighbouring landholder, I wish to inform you that I intend to:

☐ Prepare and lay strychnine poisoned fresh meat baits for the control of wild dogs or foxes on my property (tick if relevant)

☐ Lay traps poisoned with strychnine for the control of wild dogs or foxes (tick if relevant)

I intend to commence baiting on / / and complete baiting on / / 

Strychnine will be used at the following address:


Please be advised that strychnine is highly toxic. Please ensure children and other persons in your care are restricted from entering the site. Please restrain your pets, work dogs and stock to avoid the possibility of poisoning.

Regards,

__________________________________ ________________________________  
(Senders Signature)    (Senders Address)

_____________________________________________ ___________________________________________  
(Senders Name)    (Senders Phone Number)
Appendix 3  MSDS - Strychnine

NASHCORP PTY LTD  ACN 010 581 615  ABN 27106203107

PO Box 157, Pacific Fair, Broadbeach, QLD 4218  Phone 07 5538 6444  Fax 07 5592 1256
Email: enquiries@nashcorp.com.au

Strychnine Hydrochloride

Hazard Alert Code: EXTREME

Material Safety Data Sheet  Issue Date 22 February 2013

Section 1 – Chemical Product and Company Identification

Product Name
strychnine hydrochloride

Proper Shipping Name
STRYCHNINE or STRYCHNINE SALTS

Product Use
Dangerous POISON
Shall NOT be available in packs for domestic use
Previously used as a tonic and stimulant
Reagent

Supplier
Nashcorp Pty Ltd
PO Box 157, Pacific Fair, Broadbeach, QLD 4101
Phone 07 5538 6444
Fax 07 5592 1256
Email: enquiries@nashcorp.com.au

Section 2 – Hazards Identification

Statement of Hazardous Nature

HAZARDOUS SUBSTANCE, DANGEROUS GOODS.
According to the Criteria of NOHSC and the ADG Code.

Hazard Ratings
Flammability:  LOW
Toxicity:  EXTREME
Body Contact:  EXTREME
Reactivity:  LOW
Chronic:  MODERATE
Section 3 – Hazards Identification

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS RN</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strychnine Hydrochloride</td>
<td>1431-26-0</td>
<td>98%</td>
</tr>
</tbody>
</table>

Section 4 – First Aid Measures

If swallowed:

- IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
- For advice, contact a Poisons Information Centre or a doctor.
- Urgent hospital treatment is likely to be needed.
- In the meantime, qualified first aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient’s condition.

If this product comes in contact with the eyes:

- Immediately hold the eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

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- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, for at least 15 minutes.
- Transport to hospital or doctor without delay.

Skin

- If skin or hair contact occurs:
  - Immediately flush body and clothes with large amounts of water, using safety shower if available.
  - Quickly remove all contaminated clothing, including footwear.
  - Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
  - Transport to hospital, or doctor.

Inhaled

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prothetics such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

Notes to Physician

The main object of strychnine therapy is to control or prevent convulsions and asphyxia; immediate treatment involves the intravenous administration of diazepam (10mg – less for children), repeated as required. Muscle relaxants.

Section 5 – Fire Fighting Measures

Extinguishing Media

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

Fire Fighting

- Alert fire brigade and tell them the location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or watercourse.
- Use fire fighting procedures suitable for surrounding area.

Fire/Explosion Hazard

- Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) – according to the circumstances under which the combustion process occurs, such materials may cause fires and/or dust explosions.
- Organic powders when finely divided over a range of concentrations regardless of particular size or shape and suspended in air or other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited – particles exceeding this limit will generally not form flammable dust clouds, once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
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- In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use - this is because of the inherent difficulty of achieving homogenous dust clouds at high temperatures (for dusts the LEL is often called the Minimum Explosible Concentration (MEC)). Combustion products include: carbon monoxide (CO), carbon dioxide (CO₂), hydrogen chloride, phosphorus, nitrogen oxides (NOₓ), other pyrolysis products typical of burning organic material.

Fire Incompatibility
- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Hazchem
2K

Section 6 – Accidental Release Measures

Minor Spills
- Clean up waste regularly and abnormal spills immediately.
- Avoid breathing dust and contact with skin and eyes.
- Wear protective clothing, gloves, safety glasses and dust respirator.
- Use dry cleaning procedures and avoid generating dust.

Major Spills
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell the location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent spill by any means available, spillage from entering drains or watercourse.

Personal Protective Equipment advice is contained in Section 8 of the MSDS

Section 7 – Handling and Storage

Procedure for Handling
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well ventilated area.
- Prevent concentration in hoppers and sumps.
- Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).
- Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.
- Establish good housekeeping practices.
- Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.

Suitable Container
- Glass container is suitable for laboratory quantities.
- Lined metal can, lined metal pail/can.
- Plastic pail.
- Polyliner drum.
- Pexing as recommended by manufacturer.
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For low viscosity materials:
- Drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure.

All inner and outer packages for substances that have been assigned to Packaging Groups I or II on the basis of inhalation toxicity criteria, must be hermetically sealed.

Storage Incompatibility
- Avoid reaction with oxidizing agents, bases and strong reducing agents.
- Incompatible with alkali hydroxides and carbonates, aromatic ammonia, spirit, bromides and iodides.

Packaging Material Incompatibles

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Container Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strychnine hydrochloride</td>
<td>&quot;Acetal (Delrin)&quot;, &quot;Cast iron&quot;, Neoprene</td>
</tr>
</tbody>
</table>

Storage Requirements
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

Section 8 – Exposure Controls/Personal Protection

Exposure Controls
The following materials had no OELs on our records
- Strychnine Hydrochloride
  CAS: 1421-86-9  CAS: 6101-04-8

Material Data
STRYCHNINE HYDROCHLORIDE
Strychnine is an acute convulsant poison acting at the level of the spinal cord in animals and man. The daily 8-hour TWA exposure to strychnine in air corresponds to a total dose of 0.02 mg/kg/day.

Personal Protection:

Respirator
- Particulate: (AS/NZS 1716 & 1715, EN 143 2000 & 149 2001, ANSI Z88 or national equivalent)

Eye
- Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient when complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.
- Chemical goggles wherever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.
- Full face shield (20cm, 6 in minimum) may be required for supplementary but never for primary protection of eye; these afford eye protection.
- Alternatively a gas mask may replace splash goggles and face shields.
Strychnine Hydrochloride

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Hands/Feet
• Elbow length PVC gloves.
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality, which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
  The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.
  Suitability and durability of glove type is dependent on usage.

Other
• Overalls.
• Eyewash unit.
• Barrier cream.
• Skin cleansing cream.

Engineering Controls
• Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
  The basic types of engineering controls are:
  o Process controls, which involve changing the way a job activity, or process is done to reduce the risk.
  o Enclosure and/or isolation of emission source which keeps a selected hazard ‘physically’ away from the worker and ventilation that strategically ‘adds’ and ‘removes’ air in the work environment.

Section 9 – Physical and Chemical Properties

Appearance
Colourless crystals or white crystalline crystals, mixes with water (1gm dissolves in 40ml water).

Physical Properties
Solid, mixes with water.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Range (°C)</td>
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</tr>
<tr>
<td>Boiling Range (°C)</td>
<td>Not applicable</td>
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<tr>
<td>Flash Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temp (°C)</td>
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<tr>
<td>Autoignition Temp (°C)</td>
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</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
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<tr>
<td>Lower Explosive Limit (%)</td>
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<td>Volatile Component (%)</td>
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<tr>
<td>Molecular Weight</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Solubility in water (g/L)</td>
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<tr>
<td>pH (1% solution)</td>
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<td>p(m as supplied)</td>
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<tr>
<td>Vapour Pressure (kPa)</td>
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<tr>
<td>Relative Vapour Density (m=1)</td>
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</tr>
<tr>
<td>Expiration Rate</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Section 10 – Stability and Reactivity

Conditions contributing to instability
• Presence of incompatible materials.
• Product is considered stable.
• Hazardous polymerisation will not occur.

For incompatible materials refer to Section 7 – Handling and Storage
Strychnine Hydrochloride

Material Safety Data Sheet

Section 11 – Toxicological Information

Potential Health Effects

Acute Health Effects:
Swallowed
- Severely toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 5 gram may be fatal or produce serious damage to the health of the individual.
- The toxicity of strychnine is due to its strong excitatory effect on the central nervous system. Initially there may be tremors, stiffness and twitching of the face and legs; this progresses to apprehension, fear, nausea and a feeling of identity loss. Painful convulsions then occur after very minor stimuli. The body assumes a characteristic spastic posture with an arched back, extended limbs and the feet turned inwards. The jaw is rigidly shut and face muscles are contracted in a characteristic smile. The contraction of the muscles of breathing and spasm of trunk muscles causes breathing to stop, leading to death. Strychnine is absorbed and distributed to various parts of the body within a very short period of time.

Eye
- Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterized by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result. The material may produce foreign body irritation in certain individuals.

Skin
- Skin contact with the material may produce severely toxic effects; systemic effects may result following absorption and these may be fatal.
- The material is not thought to be a skin irritant (as classified by EC Directives using animal models). Abrasive damage however, may result from prolonged exposures. Good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
- Entry into the bloodstream, though, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Inhaled
- Inhalation of dusts, generated by the material, during the course of normal handling, may produce severely toxic effects; these may be fatal.
- The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless, inhalation of dusts, or fumes, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.
- If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper precautions should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.

Be Aware: Repeated minor exposures with only mild symptoms may have serious cumulative poisoning effect.

Chronic Health Effects
- Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
- Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on x-ray.

Be Aware: Repeated minor exposure with only mild symptoms may have serious cumulative poisoning effect.
Strychnine Hydrochloride

Hazard Alert Code: EXTREME

Material Safety Data Sheet

Toxicity and irritation
No data for this material.

Section 12 – Ecological information

Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/safety data sheets.

<table>
<thead>
<tr>
<th>Ecotoxicity Ingredient</th>
<th>Persistence: Water/soil</th>
<th>Persistence: Air</th>
<th>Bioaccumulation</th>
<th>Mobility</th>
</tr>
</thead>
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Section 13 – Disposal Considerations

- Containers may still present a chemical hazard/danger when empty.
- Return to supplier for reuse/recycling if possible.
- If container can not be cleaned sufficiently well to ensure residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill.
- Where possible retain the label warnings and MSDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/or territory. Each user must refer to laws operating in their area.

A Hierarchy of Controls seems to be common – the user should investigate:
- Reduction.
- DO NOT allow wash water from cleaning or process equipment to enter drains.
- If it may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by burial in a landfill specifically licensed to accept chemical and/or pharmaceutical waste or incineration in a licensed apparatus (after adding mixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
Strychnine Hydrochloride

Hazard Alert Code: EXTREME

Material Safety Data Sheet

Section 14 – Transportation Information

Labels Required: TOXIC
HAZCHEM: 2X (ADG7)

Air Transport IATA
ICAO/IATA Class: 6.1
UN/D Number: 1692
Special Provisions: AS

Cargo Only
Packing Instructions: 673
Maximum Qty/Pack: 50kg

Passenger and Cargo
Packing Instructions: 666
Maximum Qty/Pack: 5kg

Passenger and Cargo Limited Quantity
Packing Instructions: Forbidden
Maximum Qty/Pack: Forbidden

Shipping name: STRYCHNINE or STRYCHNINE SALTS

Maritime Transport IMDG
IMDG Class: 0.1
UN Number: 1692
EMS Number: F-4,5-A
Limited Quantities: 0

Shipping name: STRYCHNINE or STRYCHNINE SALTS

Section 15 – Regulatory Information

Indications of Danger
N Dangerous for the environment
T+ Very toxic

Poisons Schedule
S7,S4
Strychnine Hydrochloride

Hazard Alert Code: EXTREME

Material Safety Data Sheet Issue Date 22 February 2013

Regulations

Strychnine hydrochloride (CAS: 1421-86-9, 6101-04-8) is found on the following regulatory lists:


Section 16 – Other information

Ingredients with Multiple CAS Numbers

Ingredient Name CAS

Strychnine hydrochloride 1421-86-9, 6101-04-8

• The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Users should make their own investigations to determine the suitability of the information for their particular purposes. Nashcorp Pty Ltd shall not be held liable for any damage resulting from handling or contact with the above product.