





LABORATORY SAFETY GUIDELINE

L-Strychnine, 98% [CAS No. 57-24-9]

All users of Strychnine must review this document before use. Strychnine is a highly toxic chemical that can cause liver and kidney damage as well as effects the central nervous system. Users should contact their EHS Laboratory Safety Advisor and department safety officer if they have questions before beginning work.

HAZARDS

	Can cause central nervous system effects Can cause liver and kidney damage Toxic if swallowed and if absorbed through the skin
	Can cause long-term adverse effects in the aquatic environment

Strychnine is highly acutely toxic and should only be handled in the powdered form in a chemical fume hood or ventilated enclosure. This chemical in solution can be absorbed through the skin so precautions should be taken to minimize contact. People working in the same fume hood or ventilated enclosure should be made aware of hazards and even minor spills should be cleaned up immediately.

PRECAUTIONS

Before starting work:

- Determine if you can use a less hazardous substance in place of Strychnine;
- Review manufacturer's Safety Data Sheet and additional chemical information at ehs.harvard.edu/safety-data-sheets-sds;
- Ensure that a written experimental protocol including safety information is available;
- Be familiar with general University emergency procedures in the [EHS Lab Emergency Response Guide](#);
- Order the most dilute solutions available that will meet experimental needs. Order only the quantity that you need;
- Identify the location of the nearest eyewash and shower and verify that they are accessible;
- Locate and verify that appropriate spill cleanup materials are available;
- Ensure another person who knows emergency procedures is in the area.

During work:

- AVOID INHALATION! Perform all operations with the powdered form in a certified chemical fume hood or other approved ventilated enclosure. Sash lowered as much as possible. Always work at least 6 inches into the fume hood and behind the sash;
- AVOID CONTACT! Use appropriate personal protective equipment (PPE):
 - Wear a lab coat, a garment covering to the ankles, and closed-toed shoes, and wrist protection;
 - Safety glasses or goggles when working with the powder or solution;
 - Glove material – Nitrile (double gloved), PVC or butyl rubber;
 - Gloves must be thoroughly inspected prior to each use. Do not use damaged gloves;
 - Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact;
 - Wash hands and forearms thoroughly with soap and water each time gloves are removed;
- Use materials and containers appropriate for Strychnine use (e.g., glass, lined metal, or plastic containers) and remain aware of potential incompatibilities (e.g., with strong oxidizing agents as well as alkali hydroxides, bromides, carbonates, and iodides).
- Keep all containers tightly closed when not in use and during transport.

After completing the work:

- Dispose of Strychnine waste following Harvard University [Hazardous Waste Procedures](#)
 - Hazardous Waste Classification: Toxic
 - Make sure all containers remain closed and sealed.
 - Clean up any spills of the powdered material immediately.
- Return container to storage area following Harvard University [Laboratory Chemical Storage Guide](#)
 - Storage Group: High Acute Toxicity (AT);
 - Store in original containers or other appropriate containers;
 - Store primary container in designated and compatible secondary containers;
 - Store away from incompatibles;
 - Secure this material, it should not be out on an open bench top
- Wash hands and forearms thoroughly with soap and water before leaving the lab.

EMERGENCY PROCEDURES

First Aid

SKIN CONTACT

- Wash with plenty of tepid water for at least 15 minutes using the closest available sink, safety shower or drench hose. Remove any exposed clothing as well as any jewelry.
- Seek medical attention; call 911 on a landline phone for medical assistance (or provide location if calling on a mobile phone).

EYE CONTACT

- Using eyewash, flush eyes while holding eyelids open;
- Seek medical attention; call 911 on a landline phone for medical assistance (or provide location if calling on a mobile phone).

INHALATION

- Speed is essential, obtain medical attention immediately;
- Remove person to fresh air immediately
- Call 911 on a landline phone for medical assistance (or provide location if calling on a mobile phone).

INGESTION

- Speed is essential, obtain medical attention immediately 911 on a landline phone for medical assistance (or provide location if calling on a mobile phone).
- Wash mouth out with water. Never give anything by mouth to an unconscious person;
- Seek medical attention; call 911 on a landline phone for medical assistance (or provide location if calling on a mobile phone).

Spill Response

OUTSIDE FUME HOOD OR VENTILATED ENCLOSURE

- Alert others and evacuate to a safe distance and prevent entry.
- Contact the University Operations Center at (617) 495-5560 [HMS/HSDM (617) 432-1901]
- Remain in a safe location until EH&S or other response personnel arrive.

INSIDE FUME HOOD OR VENTILATED ENCLOSURE (< 500 ml or mg)

- If trained and confident, you may assist in the clean-up effort of small amounts, wearing PPE described above and using appropriate spill supplies.
 - To clean up a powder spill of strychnine, cover the powder with damp paper towels so as not to aerosolize the powder.
 - To clean up a liquid spill of strychnine, cover with paper towels and thoroughly absorb.
 - Collect debris in appropriate container and move to your Satellite Accumulation Area. Label with appropriately completed hazardous waste tag and request a waste pickup.
 - Clean the area with soap and water collecting the materials used to clean and putting the materials out as a hazardous waste.
- Otherwise close the fume hood sash and await support.
- Contact the University Operations Center at (617) 495-5560 [HMS/HSDM (617) 432-1901] if you need support or technical assistance.