




LABORATORY SAFETY GUIDELINE

Tricaine Methanesulfonate (**MS-222**) [CAS No. 886-86-2]

All users of MS-222 (also known as tricaine and TMS) must review this document. MS-222 is an anesthetic and euthanasia agent for fish, amphibians, and other aquatic cold-blooded animals. MS-222 is supplied as a crystalline powder which is readily soluble in all types of water. If you are using MS-222, you should familiarize yourself with the hazards and the proper dosing concentration for the intended application (e.g., anesthesia, transport, surgery, or euthanasia).

HAZARDS

	Eye irritant Skin irritant Respiratory irritant
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PRECAUTIONS

Before starting work:

- Ensure that a written experimental protocol including safety information is in place.
- Review the manufacturer's Safety Data Sheet and additional chemical information at <http://www.ehs.harvard.edu/safety-data-sheets-sds>.
- All staff using MS-222 must be trained in procedures for the safe handling, use, storage, and disposal of MS-222.
- Be familiar with general University emergency procedures in the [EHS Emergency Response Guide](#).
- Order only the quantity that you need for your protocol.
- Identify the location of the nearest eyewash and shower and verify that they are accessible.

During work:

- AVOID CONTACT! Use appropriate personal protective equipment (PPE):
 - Wear closed-toed shoes and garments required for your facility under IACUC/OAR/HCCM protocols when preparing solutions.
 - Use appropriate eye protection that provides splash protection.
 - Use nitrile gloves.
 - Wash hands thoroughly with soap and water each time gloves are removed.
- Keep container tightly closed when not in use.

After completing the work

- Following preparation and use of MS-222, thoroughly clean the work area with soap and water.
 - Return stock container to storage area and ensure the container is tightly closed
- Return container to storage area following Harvard University [Laboratory Chemical Storage Guide](#)
 - Storage Group: General Storage (GS);
 - Store in original containers or other appropriate containers;
 - Store primary container in designated and compatible secondary containers;
 - Store away from incompatibles (e.g., oxidizing agents, acids);
- Wash hands and forearms thoroughly with soap and water before leaving the lab.

EMERGENCY PROCEDURES

First Aid

SKIN CONTACT

- Treat affected areas immediately by flushing skin with water for 15 minutes followed by thorough washing with soap and water. Remove any exposed clothing and shoes, as well as any jewelry.
- Seek medical attention

EYE CONTACT

- Using eyewash, flush eyes while holding eyelids open for at least 15 minutes.
- Seek medical attention.

INHALATION

- Remove person to fresh air.
- Seek medical assistance.

INGESTION

- Do not induce vomiting;
- Rinse mouth with water if conscious;
- Seek medical attention

Spill Response

- You may assist in the clean-up effort, wearing PPE described above and using appropriate spill supplies.
 - Paper towels/absorbent pads
 - Collect debris in appropriate container and move to your Satellite Accumulation Area. Label with appropriately completed hazardous waste tag and request a waste pickup.
- Contact the University Operations Center at (617) 495-5560 [HMS/HSDM (617) 432-1901] if you need support or technical assistance.