

# Tricaine methanesulfonate (MS-222, TMS) Standard Operating Procedure

## OVERVIEW

### HAZARD CLASSIFICATION

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

- MS-222 is a widely used anesthetic agent for aquatic species. Pharmaceutical grade MS-222 working solutions must be made fresh for each use and buffered to a neutral pH for all intended uses on live vertebrate aquatic species.
- Handling the dry powder presents the greatest exposure risk. MS-222 becomes less hazardous once it is mixed into solution.

## PREPARATION

- Preparation in a certified fume hood provides the greatest level of protection.
- If a fume hood is unavailable, prepare in a well-ventilated room.
  - Personnel must wear a **fit tested N-95** and goggles when preparing MS-222 in an open room.
  - N-95 users must comply with UF's **Respiratory Protection Program**.
- PPE: Disposable gloves, lab coat, safety glasses/goggles, N-95 when not utilizing a fume hood.

## WASTE DISPOSAL

- MS-222 should never be discarded into the natural environment.
- Any leftover buffered stock solution may be disposed of in the drain if it is connected to a wastewater treatment facility. If it is connected to a septic system, it will need to be discarded through EH&S Hazardous Waste Management.
- Contaminated solids (PPE, towels, etc.) should be packaged and disposed of as non-regulated solid waste.
- Leftover original solid material must be returned to UF for disposal through EH&S Hazardous Waste Management.
- Contaminated sharps will need to be discarded in a sharps container, closed once 3/4 full, and discarded into a biohazard box.

## SPILLS

- Evacuate personnel and allow aerosols to settle. Follow the EH&S guidance for chemical spill clean-up. Call **EH&S (352.392.1591)** for support with large spills.

## FIRST AID

- Reference the manufacturer's SDS.