

Standard Operating Procedure: Ethidium Bromide

Laboratory Information

Department:	
Principal Investigator(s):	
Laboratory Manager/Supervisor (or designated laboratory-specific chemical hygiene officer):	
Laboratory emergency contact (name and phone):	
Laboratory phone:	
Designated area (s) of these procedures with chemical(s): (building and room):	
Agent storage location (building and room) and specifics regarding location/container/cabinets:	

Chemical Information

Chemical Name(s), including CAS No:  	Ethidium Bromide CAS 1239-45-8
GHS Classification and Hazard Statements (see SDS sheet provided by the chemical's manufacturer): Ethidium Bromide is fatal if inhaled, harmful if swallowed, and suspected of causing genetic defects.	

Signs and symptoms of exposure or release	Ingestion: May cause nausea and vomiting. Ethidium bromide is an irritant to the skin, eyes, mouth and upper respiratory tracts.
Routes of exposure	Inhalation, ingestion, dermal
Required engineering controls: (i.e., chemical fume hood, biological safety cabinet, glove box, temperature control, humidity control, shielding, luer-lock syringe, in-line HEPA filter, etc.)	Work in a certified chemical fume hood or other fully exhausted enclosure for aerosol producing procedures including working with open containers of dry powder or with open or pressurized manipulations of solutions. An eyewash /or shower is strongly recommended in the immediate work area.
Personal Protective Equipment (PPE) required for procedures:	Minimum PPE includes a fully buttoned lab coat, safety glasses, and disposable gloves. For work with large amounts or risk of splash: Goggles and faceshield, double nitrile gloves, disposable sleeves or gown.
Known incompatibilities with chemical(s):	Strong oxidizers
Special storage and handling considerations:	Store in a cool dry place away from oxidizers. Designate a work area for use of particularly hazardous substances. Contamination of surfaces may be assessed using UV light.
Please list the approximate amount(s) of chemical(s) utilized in all procedures	

Please describe, in a stepwise fashion, the work practices and procedures involved in the handling and utilization of this agent.

Please be clear and complete in the description of procedures (i.e., measuring, weighing, pouring, mixing, injection, mixing, transporting, administration to animals, heating, etc.).

Be sure to include any precautionary safety steps undertaken during these procedures.

Please submit additional pages, if necessary.

Waste collection and disposal procedures:	Waste chemicals shall be collected in a secured area. The area shall be free from evidence of spills. A Hazardous Waste label shall be affixed to the collection container and components shall be listed on the label as they are introduced into the container. Do not date containers until the day of scheduled pickup. Additionally, the container shall be marked with the hazard class of the chemical waste (i.e., Ignitable, Toxic, Reactive, Corrosive). When the container is no more than 2/3 full, date the container and submit a pick-up request in the UK E-trax system: https://etrax.chematix.com/Chematix/
Spill procedure: Lab Specific Notes on Spill Response: Decontamination of surfaces can be completed by cleaning the surface 6 times with water OR by wetting the surface with ethanol and sprinkling with activated charcoal before wiping up paste with paper towels.	Major spills of stock solution: Leave the area and notify others not to enter. Report the spill to the UK Environmental Quality Management Department (EQMD) at (859) 323-6280 (M-F 8am-5pm) or after hours by dialing 911 from any on-campus phone or by contacting the UK Police at (859) 257-UKPD (8573). Minor spills of manageable amount: If necessary, contact EQMD for guidance. Consult manufacturer's SDS for instructions and compatibilities for your chemical (Be aware of any materials such as paper towels or water that could be incompatible with your spilled chemical!
Response procedures in the case of an incident or injury:	UK Employees: - After receiving first aid (refer to the chemical's SDS), report the occupational exposure to a hazardous chemical to UK Worker's Care at 1-800-440-6285. - If needed, an appointment will be made for the employee at UK UHS. - For severe emergency or injury, call 911 or proceed to the UK Chandler Hospital Emergency Department UK Students: - Call UHS at (859) 323-APPT to report an occupational exposure to a chemical hazard. - If needed, an appointment will be made for the employee at UK UHS. For severe emergency or injury, call 911 or proceed to the UK Chandler Hospital Emergency Department Additional Lab-Specific Emergency Procedures:

A copy of the manufacturer's SDS for this agent and the PI approved SOP shall be kept in the lab's Chemical Hygiene Plan (CHP). The CHP shall be stored in a location known to all laboratory personnel and is accessible during work hours.

Personnel Training

- Prior to conducting any work with (name of the chemical), designated personnel must be provided training specific to the hazard involved in working with the substance.
- The PI must provide his/her lab personnel with a copy of the SOP and a copy of the SDS provided by the manufacturer. Any further training materials must be documented and stored in the lab's Laboratory Safety Manual and available to internal UK or external oversight agency inspectors.
- The PI must ensure that his/her lab personnel have completed the initial and the consecutive annually required Chemical Hygiene trainings and Hazardous Waste training.

The undersigned have read and understood the content of this SOP and the SDS for: **Ethidium Bromide**

[illegible]

SOP Reviewed and Approved by:

PI: (typed name)	
PI: (signature and date)	
Lab Manager/Supervisor (typed name)	
Lab Manager/Supervisor (signature and date)	