


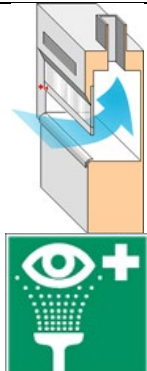



Ethidium Bromide



Laboratories should create their own lab-specific SOP's for the use of Ethidium Bromide

AKA EtBr: Commonly used as a fluorescent marker in electrophoresis

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazards</p>	<p>Potential Hazards</p>	<ul style="list-style-type: none"> Ethidium Bromide, an odorless solid, is fatal in inhaled. Ethidium Bromide is a mutagen and is harmful if swallowed. For further safety information, refer to Laboratory Chemical Safety Summary for Ethidium Bromide (PubChem) and manufacturer Safety Data Sheet (SDS) 	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazard Control</p>	<p>Selection & Purchase</p>	<ul style="list-style-type: none"> Use a safer alternative when possible Purchase the smallest container at the lowest concentration practical. 	
	<p>Storage & Transport</p>	<ul style="list-style-type: none"> Store/transport powder and solutions in sealed shatter-resistant containers. Secondary containment is advised for transport. Store away from strong oxidizing agents in a cool, dry place. 	
	<p>Engineering Controls & Safety Equipment</p>	<ul style="list-style-type: none"> Work in a chemical fume hood (or other exhausted enclosure) if aerosols could be created, including for: <ul style="list-style-type: none"> Open containers of dry powder Open or pressurized manipulations of suspensions/solutions. An eyewash or eyewash/drench hose is strongly recommended in the immediate work area 	
	<p>Work Practice Controls</p>	<ul style="list-style-type: none"> Label designated work area "Ethidium Bromide in use. Mutagen and Toxic" Post this Guideline nearby. Line the work area with a disposable plastic-backed absorbent pad Keep containers closed as much as possible. If weighing dry powders, place balance in hood OR <ul style="list-style-type: none"> Tare (pre-weight) an empty container with a lid. Go to hood, add powder to container, close lid. Go to balance to weigh. Return to hood to make sure solution or manipulate powder. Contamination can be checked using a UV light. If decontamination is needed, wipe up any excess liquid with paper towels then use one of the two options below <ul style="list-style-type: none"> Wipe surface six times with wet paper towel Wet surface with ethanol. Sprinkle activated charcoal on top. Wipe up paste with paper towel. All decontaminated materials must be disposed of as hazardous waste. 	<p style="text-align: center;">Ethidium Bromide Work Area Danger! Toxic! Mutagen!</p>

	<p>Personal Protective Equipment (PPE)</p>	<ul style="list-style-type: none"> • Dartmouth College has a Policy on PPE for Chemistry • Wear closed-toed shoes and clothing covering the legs. • Minimum PPE: <ul style="list-style-type: none"> ○ Fully fastened lab coat with sleeves extending to wrists. ○ Safety glasses ○ 5 mil NEOPRENE gloves (Change immediately if contaminated & every 2 hours. Wash hands at time of change) ○ Dartmouth College Stockrooms provide Purple Nitrile Gloves which have a thickness of 0.09-0.15 mm from Cuff to Middle Finger. • If there is a risk of splash/large amounts: (in addition to the above, wear) <ul style="list-style-type: none"> ○ Goggles and a face shield ○ A 2nd pair of nitrile gloves 	
<p>Other</p>	<p>Emergencies & Spills</p>	<ul style="list-style-type: none"> • For fire or potential for a fire – Pull nearest fire alarm pull station, evacuate the building and go to a safe location to dial 911. (In Borwell, Rubin and Williamson, dial 5555) • Serious injury or exposure to a hazardous material -- dial 911. <ul style="list-style-type: none"> ○ Find the nearest eyewash station or safety shower ○ Flush the contaminated area with large volumes of water ○ While flushing, remove any clothing which may have been contaminated (including shoes) ○ If the injury is to the eyes, hold the eyes open to ensure irrigation under the eyelids (15 minutes minimum) ○ Continue flushing until EMS arrives • Spill is beyond your ability to control (See Spill below) Contact EHS 603-646-1762 or after hours contact Dartmouth Safety and Security at 603-646-3333. • For clean-up of small spills do one of the following <ul style="list-style-type: none"> ○ Wipe surface six times with wet paper towel ○ Wet surface with ethanol. Sprinkle activated charcoal on top. Wipe up paste with paper towel. • Contamination can be checked using a UV light. 	
	<p>Waste</p>	<ul style="list-style-type: none"> • Label any waste containers with the appropriate waste labels. • Store in secondary containers. • For waste pick up and disposal contact Dartmouth EHS by e-mailing ehs@dartmouth.edu 	
	<p>Training</p>	<p>Dartmouth College requires certain training for employees. For this chemical Laboratory Safety/ Hazardous Waste Management is required. This training is mandatory for all personnel working in a teaching or research wet laboratory. It is an introductory program on laboratory safety and waste management in a biomedical, engineering, chemistry, earth science or physics lab at Dartmouth College. The course takes approximately 45 minutes to complete. Completion is required every three years.</p>	
	<p>Medical Surveillance</p>		
	<p>Monitoring Requirements</p>		
	<p>Questions</p>	<p>Contact Dartmouth Environmental Health and Safety by e-mailing us a ehs@dartmouth.edu calling 603-646-1762 or visting our website.</p>	

“I have read and understand this Guidelines. I agree to fully adhere to its requirements.”

Last	First	Dartmouth ID	Signature

Acknowledgement: Special thanks for Duke’s Occupational & Environmental Safety Office for their permission to use this great design for our chemical guidelines. All Dartmouth High Hazard Guidelines are based on [Duke OESO Chemical SOP’s and Guidelines](#)