

**EHS**

**Environmental Health and Safety**

**Handling One Pound Cylinder of Liquified Gas - Propane**

**Standard Operating Procedure**

Name:

Date:

Revision Number:

Date of Revision:

**\*Attach steps of procedure that involves the use of the one pound cylinder of propane.\***

**1.0 Hazards Associated with Propane:**

Extremely flammable gas. May form explosive mixture with air. Contains gas under pressure. May explode when heated. May cause frostbite. May displace oxygen and cause rapid suffocation.

NFPA Ratings:

Flammability – 4

Health – 2

Reactivity - 0

**2.0 Controls:**

**2.1 Engineering Control:**

* Utilize a fume hood or snorkel.

**2.2 Administrative Controls:**

* Do not work alone in the lab. Implement the buddy system.
* Attend baseline laboratory safety training (required annually). The training schedule is located at the following link - [Training Schedule](http://www.uml.edu/ehs/Training_Schedule.html).
* Attend laboratory-specific training on handling methylene chloride.
	+ Document this training in section 8 of the Chemical Hygiene Plan Notebook.
* Know the location of the emergency shower and eyewash station.
* Review this SOP and the propane safety data sheet as part of your laboratory-specific training on handling propane.
* Keep a hard copy of the safety data sheet (SDS) for propane in section 6 of the CHP Notebook.
* Place the propane SOP in section 7 of the CHP Notebook.
* Before igniting an open flame, make sure there are no flammable liquids or gases in the area.
* Purchase only enough material needed to complete an experiment.
* Wash hands thoroughly with soap and water after removing gloves.

**2.3 Personal Protective Equipment:**

* Safety glasses
* Flame Resistant laboratory coat
* DO NOT WEAR GLOVES
* Closed toe shoes and pants

**3.0 Precautions:**

* Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

**4.0 Storage:**

* Store in a well-ventilated location. There is a limit of no more than 2 one pound cylinders of propane in a lab space.

**5.0 Disposal: Not Applicable**

**6.0 Emergency Procedures:**

**6.1 Spills - Not Applicable**

**6.2 First Aid**

For eyes

* Irrigate the eyes for 15 minutes, holding eyelids apart.
* Call extension 44911 or 978-934-4911 from a cell phone to seek medical assistance and then can keep track of the length of time eyes are being irrigated.

For skin (Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.)

* For frostbite, try to warm up the frozen tissues and seek medical attention.
* Call extension 44911 or 978-934-4911 from your cell phone immediately to seek medical assistance.

For inhalation

* Remove to fresh air. Seek medical attention immediately. Call extension 44911 or 978-934-4911 from a cell phone.

**6.3 Fire:**

* Evacuate the lab, pull the nearest fire alarm pull station and then go to a safe area and call extension 44911 or 978-934-4911 from a cell phone. Follow the fire safety evacuation plan. (The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.)

**NOTE:** All work-related injuries must be reported immediately to Human Resources (HR) by calling extension 43560. (HR has some forms that will need to be filled out within 48 hours after the incident.) An Incident/Injury Report Form must be filled out. The Incident/Injury Report Form is available on-line at [EHS](http://www.uml.edu/ehs). Please double click on the link, under quick links, for permits and forms.]

*\*The buddy, supervisor, or Principal Investigator may fill out the Incident/Injury Report Form while the injured employee follows first aid procedures and seeks medical attention.*