



California State Polytechnic University, Pomona
College of Engineering Lab Safety Sheet

Lab Safety Precautions and Safe Operating Procedures

Page: 1

of 2

Title of Class, Student Team, Senior Project, or Research Project: Vacuum Distillation of Ethanol	
Prepared by: Course Coordinator <input type="checkbox"/> Advisor <input checked="" type="checkbox"/> Research PI <input type="checkbox"/> Name: Mehrdad Haghi	
Date Prepared: 6/2/13	Approved By (Dept. Chair): Angela Shih

Description of Job/Task	Potential Safety/Health Hazard	Preventive Safe Work Conditions, Mandatory Safe Work Practices and/or Personal Protective Equipment
Handling of ethanol and hydraulic oil.	Material is flammable and potentially toxic.	Always wear safety goggles. Be aware of chemical hazards and location of MSDS sheets. Be aware of location of fire extinguishers. Do not spill on hot surfaces, or expose ethanol or ethanol vapors to an open flame. Clean spills immediately. If there is a substantial ethanol spill, make sure to open the roll-up doors to provide adequate ventilation. Do not consume reagent grade ethanol.
Operation of heaters and vacuum pump.	Electrocution hazard.	Be careful not to spill water or ethanol on electrical equipment. If a spill occurs, turn off equipment and unplug it from the wall before attempting to clean. Do not operate if you notice a frayed power cord or loose electrical connector. If machine is on when you notice this, turn everything off and notify Dr. Haghi.
Fire in the lab.	Burn injury; smoke inhalation.	(a) Learn the location of lab fire extinguishers during the first lab session. (b) If the fire is minor and you are not endangering your personal safety, shut down the equipment and notify Dr. Haghi and/or a lab technician. Use the nearest fire extinguisher to extinguish the fire.

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Page: 2

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Water/ice spills.	Slip hazard.	<p>(c) If the fire is large or growing rapidly, <u>leave the laboratory and close the door.</u> Sound the building fire alarm. Report the exact location of the fire to the CAL POLY POMONA SECURITY. The EMERGENCY TELEPHONE NUMBER for CAMPUS SECURITY IS 911 FROM ANY CAMPUS PHONE. If you have only your cell phone, 911 will go to California Highway Police, so dial (909) 869-3070 instead for campus police.</p> <p>Clean spills of water and/or cooling ice immediately. Be cautious when walking on wet floors.</p>