

HAZARDS


BEFORE ENTRY





STOP: READ FIRST ABOUT THE POSSIBLE HAZARDS YOU WILL FACE IN THIS LAB


In case of any queries please contact one of the responsible lab persons (see information on the door).


Employees and guests who want to work here should have completed GERT prior to their entry (<http://www.lbl.gov/ehs/training/webcourses/EHS0470/>).


Hazard	Examples	Yes	No	Antidote	Comment
SURPRISE CONFUSION DISTRACTION 					DO NOT WORK IF YOU: <ul style="list-style-type: none"> - feel fatigue - do not know what is going on - cannot find protection gear - you are in a hurry or stressed
					→ tell people if you need help
	- people	X		- communication	talk about projects with coworkers
	- radio	X		- speak English only	no German, Spanish, Korean...
	- ongoing work	X		- organization	
	- nescience			- inform yourself first	(contact responsible lab persons)
	- fatigue			- rest first	
	- stress			- ask for help	
			- respect hazards		
			- clean up after finishing		



Hazard	Examples	Yes	No	Antidote	Comment
HOT 					<ul style="list-style-type: none"> - always be careful touching soldering iron, hot plate, heat gun etc. They might have been just used - inform your coworkers about hot equipment you are using
	- soldering iron	X		- glasses, goggles, face shield	e.g. EHS0243
	- hot plate	X		- gloves (for heat)	
	- heat gun	X		- metal tray/plate	
	- pump	X		- fan	(use to cool and to get rid of fumes)
	- lamp/bulb	X		- fire extinguisher	in hallway
	- glue gun	X			


Hazard	Examples	Yes	No	Antidote	Comment
COLD 					<ul style="list-style-type: none"> - be aware of any skin, eye or inhalation exposure to cryogenic temperatures - inform your coworkers about the use of liquid nitrogen
	- air can/duster	X		- gloves (for cold)	
	- liquid nitrogen	X		- glasses, goggles, face shield	
				- lab coat	
				- closed shoes (no textile)	
				- long trousers and sleeves	


Hazard	Examples	Yes	No	Antidote	Comment
HIGH VOLTAGE 					<ul style="list-style-type: none"> - call electrician for help - do not work on power lines - treat all devices as energized - assure that all electrical >50V (AC or DC) is shielded against contact
	- power supplies	X		- deenergize equipment	
	- batteries	X		- tape or cover electrodes	tape contacts of 9V batteries before putting them in the recycling box
	- electric panels	X		- do not touch	
				- ground equipment	
				- unload capacitors	
				- get training	e.g. EHS0256, EHS0260
				- insulated screw drivers	

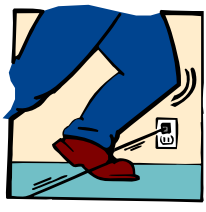
Hazard	Examples	Yes	No	Antidote	Comment
SHARP AND EDGED 					<ul style="list-style-type: none"> - inform your coworkers about sharp equipment you are using - repair or replace broken tools immediately - wear safety glasses with side shields when using powered tools
	- razor blade	X		- put in holsters or boxes	put sharp tools away when finished
	- cutter	X			
	- knife	X			
	- scalpel	X			
	- screwdriver	X			
	- needle/glass	X		- dispose in SAA (room 104)	
	- file	X		- gloves	
	- saw	X			
	- drill	X		- glasses, goggles, face shield	
	- bulky objects	X			beware of laser table, pumps etc.
	- soldering iron	X			
	- tie wrap	X			

Hazard	Examples	Yes	No	Antidote	Comment
HEAVY AND SMOTHERING 					<ul style="list-style-type: none"> - think earthquake save - inform your coworkers about heavy equipment you are going to move - assure that body and ladders are in a stable, comfortable position before lifting - be sure you understand the load; assess its weight, size and balance
	- CF parts	X		- closed shoes (steel toes)	
	- chamber lid	X		- helmet	
	- pumps	X		- weight belt	
	- gas cylinders	X		- gas cylinder bracket	
	- elevated equip.	X		- ropes, straps	close shelves when finished
	- lead brick	X		- gas cylinder cart	in front of building 7
				- sturdy work gloves	
				- crane, small forklift	always inspect crane, hoist, shackles
				- lab jack, carts, pallet jack	
				- get training for lifting	e.g. EHS0206, EHS0062, EHS0210
				- get help	

Hazard	Examples	Yes	No	Antidote	Comment
TOXIC CANCEROUS FLAMMABLE EXPLOSIVE RADIOACTIVE  					<ul style="list-style-type: none"> - inform your coworkers about the substance you are using - restrain all cylinders against movement - store cylinders with proper separation between incompatible gases - label all containers and materials - in case of emergency: Use eye wash or shower as well as fire extinguisher - wash hands and face after completing soldering and gluing and before eating - use provided fan when soldering
	- chemical waste	X		- SAA (in room 104)	contact responsible lab person
	- CO gas		X	- gas cabinet	
	- glue gun	X		- gloves	
	- used gloves	X		- clean up when finished	
	- soldering (lead)	X		- exhaust system, hood, fan	
	- lead (brick)	X		- tape or wrap	
	- Acetone	X		- trays to avoid spills	e.g. EHS0348, EHS0604
				- no open flames or heat	
				- get training (compressed gas)	e.g. EHS0231
				- lab coat	
				- safety glasses	
	- radiation	X		- shielding & warning signs	sealed α -sources stored in 104 (safe)
				- get training	e.g. GERT, EHS0400, EHS0432
				- gloves & lab coat	
				- increase distance	
				- lower time and dosage	

Hazard	Examples	Yes	No	Antidote	Comment
NOISY 					- inform your coworkers about possible noise exposure before using the equipment
	- pumps	X		- ear muffs, ear plugs	
	- air condition	X		- keep distance	
	- drill	X		- get annual hearing test	
	- compressed air	X		- get training (noise exposure)	contact Meds in building 26

Hazard	Examples	Yes	No	Antidote	Comment
BRIGHT 					- talk to the responsible lab persons (see information on the door) - inform your coworkers about the status of the laser (on, off, blocked...)
	- halogen lamp	X		- glasses, goggles	
	- LASER		X	- no jewelry and watches	or tape rings for instance
				- laser training	e.g. EHS0280, EHS0288
				- activate interlock system	
				- shield and block the beam	

Hazard	Examples	Yes	No	Antidote	Comment
TRIP AND FALL 					
	- electrical cords	X		- alternative outlets	
	- grounding cables	X		- cable tunnels, covers	
	- hoses	X		- barriers	beware of water, air, vacuum hoses
	- ladder	X		- get help	
	- stepstool	X		- shoes with grip sole	
	- anchor bolts	X		- flag salient objects	
	- rubber mat	X			

Contacts:

- In case of any queries, concerns or suggestions please contact the responsible lab person(s) listed on the lab door.
- For EH&S questions and problems please contact Jerome Bucher from the Chemical Sciences Division: building 70 A room 1150, x7167, JJBucher@lbl.gov
- Questions with regard to this information sheet can be addressed to Thorsten Weber, building 2, room 118, x5588, TWeber@lbl.gov