

**HVAC SHOP**  
**HVAC TECHNICIAN//CERTIFIED HVAC TECH//HVAC TECH TEAM LEADER**  
**Ref. Code: H-T-4**

SOLDERING AND BRAZING		
Activity	Hazard Identification	Required Precautions
1. Walking to and from work site.	1a. Back ache; overexertion from carrying heavy weight.	1a. Transport heavy equipment using hand trucks or in pickup truck with hydraulic lift. Know your weight limit and get help if needed. Lift using leg muscles. Keep back straight.
	1b. Slipping; tripping; getting knocked into by pedestrians.	1b. Stay alert. Wear boots with good treads. In wet or icy weather, walk on clear sidewalks.
2. Driving to and from work site.	2. Motor vehicle accident; striking pedestrians, bicyclists, or individuals using rollerblades.	1. Wear prescription lenses, if required, and seatbelt. Verify that all equipment on vehicle is secured properly. Stay alert for pedestrians, bicyclists, and individuals using rollerblades.
3. Using stepladder.	3. Ladder collapsing; slipping/falling from ladder.	1. Inspect ladder before use. Use ladder of proper height. Make sure ladder is properly assembled and locked and standing on level ground. Do not exceed weight limit for ladder. Do not stand on top of ladder or on top rung. Have coworker hold ladder.
4. Using extension ladder.	4. Ladder falling; slipping/falling from ladder.	1. Use bucket truck if possible. Inspect ladder before use. Verify that ladder is properly assembled and that it is securely positioned on level ground. Tie safety rope to hold ladder to roof. Use 1'-4' rule. Use OSHA decal to verify that ladder is in the proper position.
5. Using interior scaffolding.	5. Scaffolding collapsing; falling from scaffolding.	1. Verify that scaffolding is properly assembled and wheels locked. Use safety rails properly. Verify a safe means of climbing on/off scaffolding.

6. Storing or transporting compressed gas cylinders and oxygen/acetylene torch.	6a. Explosion of compressed gas.	6a. Do not allow cylinder valves or regulator assemblies to come into contact with grease, oil, or lubricants. Wear proper eye protection.
	6b. Rupture of cylinder if valve breaks off.	6b. Always install protective valve cover. Always secure cylinder to a stand or a wall.
7. Soldering and brazing using oxygen/acetylene outfit.	7a. Regulator diaphragm rupturing when torch is turned on.	7a. Turn regulator adjusting screw counterclockwise to disengage plunger before turning on cylinder.
	7b. Acetylene explosion.	7b. Stand acetylene tank vertically before using.
	7c. Torch explosion.	7c. Install spark arrestors on torch and regulators.
	7d. Burning self.	7d. Wear safety goggles, gloves, overalls, and leather chaps. Always burn away from yourself.
	7e. Starting a fire.	7e. Do not solder or braze near flammable materials. Always keep fire extinguisher nearby and have a person stand by as a firewatch.
	7f. Burns from hot solder, dripping metal.	7f. Do not reach to solder or braze. Always work level with torch.
	7g. Inhalation of fumes.	7g. Work in well-ventilated area. Use exhaust fans and tubes for ventilation.
	7h. Using wrong solder can cause popping and splattering.	7h. Use correct solder for job.
	7i. Explosions.	7i. Turn off valves to relieve pressure in work area before beginning work.
	7j. Buildup of acetylene from leaks.	7j. Check hose and connections for leaks and damage before using.