University of Washington Department of Chemistry

STANDARD OPERATING PROCEDURES FOR HAZARDOUS CHEMICALS

GAS CYLINDERS

Use of compressed gas cylinders including but not limited to: Acetylene, Air, Ammonia, Argon, Boron Triflouride, Carbon Dioxide, Carbon Monoxide, Chlorine, Helium, Hydrochloric Acid, Hydrogen, Hydrogen Sulfide, Methane, Nitrogen, Oxygen and Sulfur Dioxide. Other gasses used in the lab are: *
Compressed gas cylinders present hazards because of the volume of gas and the pressure involved. Some gases also have additional temperature, toxicity, flammability, corrosive or reactive hazards. These gases should be covered under their own SOP.
Wear goggles. Gloves, face shield, lab coat or apron and/or a respirator may be required for personal protection depending on the gas and use.
Fittings and connections shall be properly tested for leaks using a soapy water "snoop" or other appropriate test system. Toxic and corrosive gases shall be stored and dispensed in a fume hood or ventilated gas cabinet.
All cylinders should be properly identified and associated specific hazards known. Cylinders must be fastened securely at all times whether in use, transit, or storage. Cylinder safety caps shall be in place whenever cylinders are not in use. Valves and/or regulators appropriate for the specific gas must be used. Store and use cylinders in ventilated areas away from heat or ignition sources. Transport large cylinders only on an approved dolly or cart. An approved cart is located in 36 Bagley.
If wearing proper protective equipment, turn the gas valve off. For cylinders that continue to leak, contact EH&S (3-7388).
Empty gas cylinders shall be marked "Empty" or "MT" and returned to the research storeroom, 36 Bagley for pickup by the supplier. Call Environmental Health and Safety (5-2848 or 3-7388) for further information.
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^{*} To be filled in by PI or Laboratory Supervisor if necessary