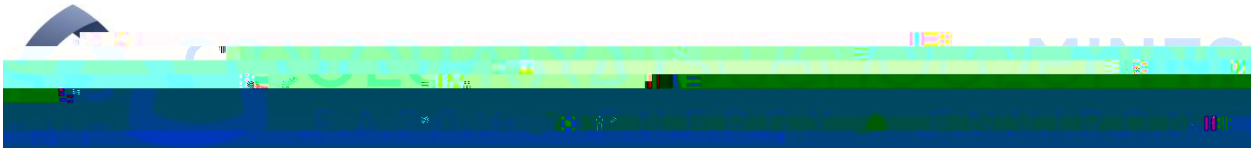

[This is a brief and general summary. Read the full MSDS for more details before handling.]

_____: Compressed gases pose physical hazards from the contents under pressure and heavy, awkward cylinders themselves. Remember that chemical hazards may also be present. Some gases are toxic, flammable, pyrophoric, or corrosive. Liquefied compressed gases (cryogenic liquids) are discussed elsewhere. Become familiar with all the hazards by reading the MSDS for each type of gas being used.

High Pressure: All cylinders of compressed gases are hazardous because of the high pressure stored inside. A sudden release of pressure can cause injury from the escaping gas, a propelled cylinder or other objects nearby.

Asphyxiation: Simple asphyxiation is the primary hazard with inert gases. Being odorless and colorless, they can escape undetected to reduce oxygen concentration below life-sustaining level.

Fire and Explosion: Fire and explosion are the primary hazards associated with flammable gases, oxygen and other oxidizing gases. Flammable gases can be ignited by heat, flame, hot object or static electricity. Oxygen by itself does not burn, but it will support or accelerate combustion of flammable materials. Some materials that are nonflammable under normal conditions may burn if oxygen is enriched.

Chemical Burns: Corrosive gases can chemically attack various materials including some fire resistant clothing. Some gases are more corrosive in the presence of water. Corrosive gases can cause rapid destruction of skin and other tissues.

Chemical Poisoning: Poisoning is the primary hazard with toxic gases. Very small concentrations of some toxic gases can cause serious poisoning. Some symptoms of exposure may be delayed.

Cold "Burns": Rapidly escaping gas from a cylinder can cause destruction freezing of tissues.

Weight of the Cylinder: A full size cylinder may weigh 150 lb or more. Moving such a mass manually may injure your back or muscles. Dropping or dragging a cylinder could cause serious injury.

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1. Use the appropriate regulator. Regulators are specific to the gas involved. Do not attempt to adapt or modify a regulator to make it fit a cylinder. Regulators are designed to fit specific cylinder valves to prevent improper use. Contact department technician, the gas supplier or EHS with any questions.
2. Attach the closed regulator to the cylinder. Do not open the main cylinder valve unless the regulator is completely closed.
3. When possible use flammable and reactive gases in a fume hood. Certain gases (highly toxic,

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