



THE **SAFE** ZONE

BASIC COMPRESSED GAS SAFETY



USING COMPRESSED GASES:

1. Limit quantities of compressed gases present in the laboratory. Ensure that cylinders are always labelled.
2. Treat all cylinders as full. Keep them in the upright position, secured to a wall or bench.
3. Never allow a cylinder to fall or bang against another cylinder.
4. Position the cylinder so you can easily reach the cylinder valve and regulator.
5. Select the correct regulator for the gas. Never adapt a regulator designed for use with a different gas.
6. Use only manufacturer approved regulator lubricants. Under pressure, gases such as oxygen, react dangerously with oil or grease lubricants.
7. Ground all flammable gas cylinders.
8. Only use the regulator to control pressure. Do not try to control flow rate with a regulator alone.
9. Check distribution system for leaks daily. A 50% glycerine/water or a soap solution works well except with oxidizing gases.
10. Never transfer gases between cylinders.
11. Do not pressurize glass equipment.
12. When gas will not be used for several days, remove the regulator and replace the cylinder cap.
13. Do not completely drain high pressure cylinders. When pressure falls to 30 psi, discontinue use, close valve, remove regulator, replace cap, mark "MT" and return cylinder to supplier.

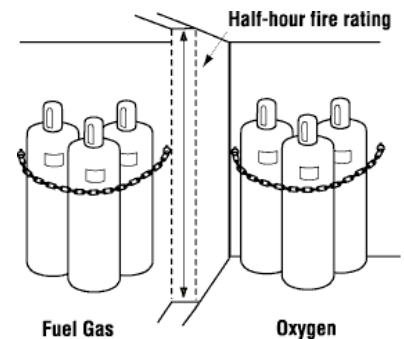


THE **SAFE** ZONE CONTINUED . . .



STORING COMPRESSED GASES:

1. Store compressed gas cylinders in the upright position, secured to a wall or a bench.
2. Do not store cylinders - even empty ones - in corridors or stairwells.
3. Store cylinders in a fire-resistant, well-ventilated area, away from sources of heat and out of direct sunlight. Protect from temperatures above 30° C.
4. Store gases which support combustion (i.e. oxygen, fluorine, chlorine) well away from fuel gases (i.e. hydrogen, methane, carbon monoxide).
5. If possible, store flammable gases outdoors, connected to a piped distribution system.



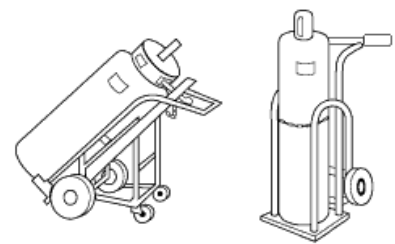
TRANSPORTING COMPRESSED GASES:

- Within Dalhousie Buildings

1. Always use a cylinder cart to move cylinders. Chain cylinder to the cart.
2. Ensure that the cylinder cap is in place before moving a cylinder.

- Off-Campus

1. Do not transport compressed gases on public roads without Safety Office authorization.
2. Do not move compressed gases in closed vehicles.
3. Secure cylinders in the upright position.



Cylinder Trolleys