

Oxygen Safety

5/01/08

Some recent reports of end-users contaminating oxygen cylinders with oil and grease has prompted this Safety Tip. Most end-users understand the potential hazards of oxygen if miss used, but a reminder from time-to-time may prevent an accident.

Oxygen cylinders, cylinder valves, couplings, regulators, hoses and apparatus **must be kept free** from **oil, grease** and other flammable or explosive substances. Oxygen cylinders or apparatus **must not** be handled with **oily hands or gloves**. Oxygen is not flammable, but vigorously supports and accelerates combustion, causing materials to burn with great intensity. Oil or grease in the presence of oxygen may ignite readily and burn violently.

Oxygen must not be used as a substitute for compressed air. Oxygen must not be used in pneumatic tools, in oil preheating burners, to start internal combustion engines, to blow out pipelines, to dust clothing or work, or to create pressure for ventilation or similar applications. Jets of oxygen must not be permitted to strike oily surface, greasy clothing, or enter fuel oil or other storage tanks. These prohibitions decrease the possibility of a raging oxygen-fed fire from occurring. Clothing can absorb oxygen. A slight spark or other ignition source can result in severe burns.

Oxygen cylinders, equipment, pipelines, or apparatus must not be used interchangeably with other gas. Contamination of oxygen equipment with combustible substances may lead to spontaneous combustion or explosion in oxygen.

Source: ANSI Z49.1: 2005