# A screen shot of a computer Description automatically generatedWorking with refrigerants HVAC

HVAC workers are commonly exposed to the hazard of working with refrigerants. The risks include physical  
hazards, flammability, toxicity and asphyxiation. Although the effects can be severe, there are ways to alleviate  
these risks and provide a safe work environment.

*Health hazards of working with refrigerants:*

- If the concentrated vapor is inhaled, it can prove to be fatal  
- If vapors are inhaled immediately move the person to fresh air  
- If they are not breathing artificial respiration should be given, and 911 should be called  
- Adrenaline/epinephrine should not be used on someone who is suffering from exposure to a refrigerant  
- Eye and skin exposure requires the area to be flushed with water  
- Appropriate emergency equipment should be readily available such as first aid kits, eye wash kits, emergency  
 contact numbers and fire extinguishers

*Important areas to note:*

- Fluorocarbon vapors are much heavier than that of air and require proper ventilation  
- Do not to trap refrigerants between valves with no pressure relief device; replace dirty relief valves  
- Alcohol spray can be used to clean ice from refrigerant sight glass when needed  
- Nitrogen can be used to test the pressure of a unit once refrigerant is removed  
- Oxygen and compressed air should not be used for pressurization as the refrigerant can explode when  
 combined with either of these gasses  
- Proper use of interlocks and disconnects, as well as correct installation, are vital in refrigerant safety  
- Do not expose refrigerants to flames, hot surfaces, or sparks  
- Any refrigerant storage area should be monitored with refrigerant detection alarms

*Technician Training:*

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- Any technician working around refrigerants must be thoroughly trained and certified  
- There must be proper labeling on all refrigerant-containing equipment  
- Appropriate personal protective equipment use must be known and used  
- Always review product labels and safety data sheets (SDS) of any refrigerants you are working with