



Cryogenics

Cryogenics are fluids only in the vapor phase above -73°C (-99°F) at an absolute pressure of 101.3 kPa (14.7 psi). They are handled, stored, and used in the liquid state at or below -73°C (-99°F) while at any pressure. Additionally, they can displace oxygen creating a hazardous atmosphere in small or poorly ventilated areas. A common cryogenic is liquid nitrogen.



Personal Protective Equipment & Personnel Monitoring



Lab Coat

Traditional white lab coat.



Gloves

Insulated cryo-gloves



Eye Protection

ANSI Z87.1-compliant safety glasses or safety goggles.

Labeling & Storage

Containers of cryogenics should be stored in a cool dry location with no carpet or with an impermeable barrier between the container and the carpet.

Engineering Controls, Equipment & Materials

Fume Hood

Typically a fume hood is not necessary for the handling of these materials. However, cryogenics can displace oxygen so having an oxygen monitor present in the space is advisable if the room is small or poorly ventilated and containers of cryogenic liquids have to be used or stored outside of any engineering controls such as a fume hood. If you have a question about a lab-specific protocol or procedure involving the use of asphyxiant gases and proper engineering controls, please contact the Office of Research Safety at 706-542-5288.

First Aid & Emergencies

Skin or Eye Contact

Remove contaminated clothing and accessories; flush affected area with lukewarm water. Get medical attention.

Inhalation

Move person into fresh air. Get medical attention.

