1. BI Substance Policy – Cryogens & Liquid Nitrogen

a. This policy covers cryogens and liquified gases: any product, material or substance liquefied by compression or refrigeration, such as liquid nitrogen.
b. For compressed gases, including dissolved gases, refer to the BI Compressed Gases Policy.
c. Refer to RMM #504: Compressed and Liquified Gases Safety Program for McMaster training requirements, and handling and storage protocols.

1.1.1. Training

a. As stated in RMM #504, prior to working with or around compressed and liquefied gases, McMaster Gas Cylinder training should be completed. Refer to the BI Training Policy.
b. Refer to the SDS prior to handling/using cryogens and liquid nitrogen.
c. Even with Gas Cylinder training, BI users are not authorized to handle liquid nitrogen containers/tanks in BI laboratories, and must request assistance from qualified BI staff.

1.1.2. Labeling

a. Compressed and liquefied gases will be labeled according to WHMIS standards.

1.1.3. Storage

a. Liquid nitrogen storage containers will be kept in well-vented areas.
b. Reactive cryogens will be kept away from sparks and flames.

1.1.4. Handling

a. BI users are NOT authorized to handle liquid nitrogen cylinders in BI laboratories, and must request assistance from qualified BI staff.
a. In addition to standard BI laboratory PPE, a full face shield and impervious gloves are required for handling liquid nitrogen. Refer to the BI PPE Policy.
b. Use cryogens only in approved containers that are capable of withstanding the extreme cold, without becoming brittle, and pressurized.

1.1.5. Transporting

a. Ensure the liquid nitrogen container is closed prior to transport.
b. When transporting, don the appropriate PPE. Refer to the BI PPE Policy.
c. When transporting large liquid nitrogen tanks, always travel in well-vented areas. If transporting a large liquid nitrogen tank by elevator, send the tank to the desired floor in an empty elevator. Ensure a visible and legible label is placed on the tank to inform others of the hazards and not to enter.

1.2. Cryogens & Liquid Nitrogen Documentation

a. Liquid Nitrogen Transportation Labels.