# BI Substances Policy – Cryogens & Liquid Nitrogen

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

### Training

1. McMaster Gas Cylinder Training must be completed prior to working with or around compressed and liquefied gases. Refer to the BI Training Policy.
2. Users may handle liquid nitrogen Dewar and access liquid nitrogen storage units following proper training from BI staff and review of the BI LiqN2 SOP.
3. Refer to the SDS prior to handling/using cryogens and liquid nitrogen.

### Labeling

1. Compressed and liquefied gases will be labeled according to WHMIS standards.
2. Liquid nitrogen tanks will be labeled with the appropriate transportation labels.

### Storage

1. Liquid nitrogen storage containers will be kept in well-vented areas.

### PPE

1. 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.

### Handling

1. BI users are not authorized to handle liquid nitrogen tanks.
2. Users, with the appropriate PPE, may handle secondary liquid nitrogen Dewar and storage containers following proper training from BI staff.
3. Secondary liquid nitrogen containers must be capable of withstanding the extreme cold, without becoming brittle, and pressurized.

### Transporting

1. Transport liquid nitrogen only in approved containers for transport.
2. 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.

## Cryogens & Liquid Nitrogen Documentation

1. Liquid Nitrogen Transportation Labels.