

LIQUID NITROGEN SAFETY

Standard Operating Procedures

(Post in all Laboratories and areas that use Liquid Nitrogen)

A. REFILLING DEWARS IN LABORATORIES

1. Never refill Dewars or transfer Liquid Nitrogen alone!
2. Make sure that there is good ventilation. Open a door if you are in a small room.
3. Use Dewars rated for liquid nitrogen
 - a. Never use a Dewar that does not have a pressure relief valve or pressure venting lid/stopper.
 - b. Never use Dewars with makeshift or homemade lids/stoppers.
 - c. Use pressure venting lids/stoppers supplied by the Dewar manufacturer
4. Dewars larger than 20 Liters will be lifted and poured by two people
5. Do not use a Funnel
6. Wear Required Personal Protective Equipment:
7. Cryogenic Gloves
8. Lab Coat with sleeves pulled over cuffs of Cryogenic Gloves
9. Liquid proof Shoe Covers/Spats
10. Chemical Splash Goggles or Laboratory Face Shield

B. DISPENSING LIQUID NITROGEN FROM STORAGE TANKS

1. Dispense only into Dewars that are rated for liquid nitrogen. (See A.3 above)
2. Dispense only into Dewars that are:
3. Equipped with carrying handles or wheels
4. Stable/not in danger of tipping over easily
5. Persons filling Dewar(s) will be in constant attendance during filling
6. Prevent Splashing. Place filling hose at or below the mouth of the receiving Dewar
7. Wear Required Personal Protective Equipment (see A.6-10 above)

C. TRANSPORTING LIQUID NITROGEN BETWEEN BUILDINGS

1. Use Dewars rated for liquid nitrogen. (See A.3 above)
2. Never Transport Liquid Nitrogen in a Open Container
3. Wear or Carry Required Personal Protective Equipment (see A. 6-10 above)
4. Do not use unstable wheeled carts or Dewars
5. Avoid grates, large cracks in sidewalks/pavement, or other hazards that could cause tipping

D. TRANSPORTING LIQUID NITROGEN WITHIN LABORATORIES AND BETWEEN LABORATORIES IN THE SAME BUILDING

1. Use Dewars rated for liquid nitrogen (see A. 3 above).
2. Do not transport Liquid Nitrogen in Open Containers
3. Wear Required Personal Protective Equipment (see A. 6-10 above)
4. If you are carrying a Dewar containing Liquid Nitrogen:
5. Make sure Dewar is your ONLY load (no books, coffee, other items)
6. Carry transport Dewar as far away from your face and body as possible
7. Watch for other people who may run into or bump you