

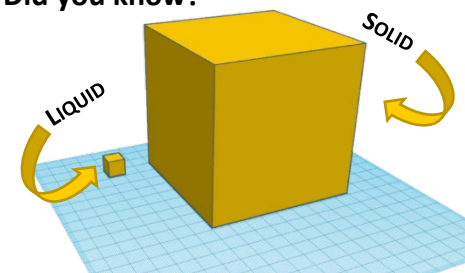
# CRYOGEN HANDLING & SAFETY



## CRYOGEN HAZARDS:

- Cryogenics can **cause tissue damage on skin contact** known as frostbite.
- Cryogenics readily evaporate and displace oxygen in air causing a risk of asphyxiation.
- Sealed cryogenic vessels could build pressure and cause **projectiles**. Store or transport in a container that allows venting.
- Cryogenics could be toxic, flammable, oxidizing and more. **Consult the material's SDS** before using.

## Did you know?



Common cryogenics expand 700-800x between liquid and gaseous states!

## SAFE USE PRACTICES

- **Never lean over or into a cryogenic storage vessel.** If feeling faint, leave immediately.
- Only use cryogenics in a well-ventilated room. **Do not enter** if room appears to be hazy.
  - An oxygen meter may be required for large amounts/poor ventilation. Contact EHS&EM for an evaluation.
- Only move storage vessels if you have been trained to do so.
  - **Do not transport in an elevator.**
- Only **use metal tongs** to handle items being dipped or stored in a cryogen.
- Work with liquid nitrogen **away from sparks and/or flames.**



## PERSONAL PROTECTIVE EQUIPMENT

### SKIN

- **Lab coat**, sleeves extended to the wrist
- **Long pants** and **close-toed shoes**
- **Rubber apron** if large quantities/open containers used.



### HANDS

- **Insulated gloves**
- Additional **chemically compatible gloves**, if other chemicals are used with the cryogen.



### EYES

- Chemical splash **goggles**
- **Face shield**

