



## Laboratory Safety Fact Sheet: Lecture Bottle

The fact sheet below gives hazard information and precautions for the use of lecture bottles in laboratory settings.

### Lecture Bottle

Lecture bottles are small, compressed gas cylinders (typically 12-18 inches long, 1-3 inches in diameter). They can contain various compressed gases: toxic, corrosive, flammable, reactive, or inert gases.

### Hazards

<b>High Pressure</b>	Contents under high pressure – risk of sudden release or rupture
<b>Toxic &amp; Corrosive Hazards</b>	May contain poisonous, corrosive, or reactive gases that cause injury or death if released
<b>Fire &amp; Explosion</b>	Flammable gases can ignite easily; oxidizers intensify fires
<b>Physical Injury</b>	Cylinders can become projectiles if valves are broken

### Personal Protective Equipment (PPE)

- Safety glasses or goggles
- Lab coat
- Chemical-resistant gloves (appropriate for gas type)
- Closed-toed shoes

### Safe Handling Procedures

**Training Required:** Only trained personnel may handle lecture bottles. Ensure you have received specific training on using lecture bottles.

**Labeling:** Never use an unlabeled lecture bottle.

### Secure Storage:

- Store upright and secured with straps or racks. Lecture bottles stored on their side are more susceptible to damage, corrosion and leaks.
- Segregate incompatible gases (flammables, oxidizers, corrosives).

- Store poisonous gases in a fume hood or a ventilated gas cabinet.
- Regulators must be removed during storage.
- Keep in cool, dry, well-ventilated areas.

**Valve Safety:**

- Always use the correct regulator for the specific gas.
- Open valves slowly and never force.
- Never tamper with or remove valves.

**Transport:**

- Always use a hand cart; never carry it by hand.
- Cap valves when not in use.

**Emergency Procedures**

**Leak Detected:**

If you observe or suspect that hazardous or inert gas is leaking:

- Attempt to turn off the cylinder at the cylinder valve if it is safe to do so.
- If you are unable to turn off the gas or have any doubts, evacuate the area and contact EH&S emergency phone or GTPD immediately.
- Prevent others from entering the area of the suspected gas leak until responders arrive.

**Exposure:**

- Move to fresh air.
- Call EH&S emergency phone.
- Seek medical attention immediately.

**Fire:**

- Pull fire alarm, evacuate, and call GTPD.
- Do not attempt to fight lecture bottle fires.

Contact EHS:

For leaks, exposure, equipment failure, or questions:

EHS Emergency Number: 404-216-5237

Georgia Tech Police Department: 404-894-2500

Email: [lab-chemsafety@gatech.edu](mailto:lab-chemsafety@gatech.edu)