

## Common Standard Operating Procedure

for work with

**Chemical**                      **Glovebox Use**

**name/class:** \_\_\_\_\_

**PI:** Ken Henderson

**Date:** 01/07/2015

**Building:** Stepan

**Room #:** Laboratory 386 and 263

1. **Circumstances of Use:**

Various including use of inert atmosphere.

2. **Potential Hazards:**

The glovebox is under positive pressure of argon, thus overpressure can occur. Prevent overpressure by slowly placing arms inside the gloves and manipulate the atmospheric pressure within the glovebox by use of the floor pedal.

The glovebox is also subject to negative pressure if proper closure of antechamber doors before evacuation occurs is neglected. This can cause atmospheric oxygen/water vapor to enter the glovebox, resulting in reaction with pyrophoric/water-sensitive materials. Implosion of the safety glass windows can also result.

3. **Engineering Controls:**

Consult a member of the Henderson lab or instructions posted on the glovebox.

4. **Work Practice Controls:**

Consult a member of the Henderson lab or instructions posted on the glovebox. Use appropriate personal protective equipment: safety glasses, standard laboratory gloves, and lab coat.

5. **Personal protective equipment (PPE):**

Wear PPE that will provide protection if the glovebox fails. Minimum PPE would be safety glasses, lab coat, and standard laboratory gloves.

6. **Transportation and Storage:**

Glovebox should be used in the designated area in Stepan 386 or 263. Consult a member of the Henderson lab or instructions posted on the glovebox for special handling procedures and storage requirements.

7. **Waste Disposal:**

For relatively nonreactive solid waste, place in waste container in glovebox for removal. If pyrophoric or water-reactive waste is generated, remove from glovebox and quench appropriately. Solvent waste can be disposed of in liquid waste containers outside of the glovebox.

8. **Occupational injuries:**

As with any work-related injury, complete the work-related injury or illness report found at: <http://chemistry.nd.edu/safety/supervisors-report-of-injury-to-the-health-center.pdf>. If medical attention is needed, see <http://chemistry.nd.edu/safety/procedures-for-injury->

[illness-or-incident.pdf](#).

9. **Emergency Procedures:**

In case of an emergency, contact the Police by calling 911 from a campus phone or 574-631-5555 from a cell phone.

10. **Training of personnel:**

Consult a member of the Henderson lab for appropriate training. Furthermore, all personnel shall read and adhere to this SOP.