#1 CONTACT INFORMATION:

<table>
<thead>
<tr>
<th>Procedure Title</th>
<th>High Vacuum Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Author</td>
<td>Kenneth R. Salsbery</td>
</tr>
<tr>
<td>Date of Creation/Revision</td>
<td>12/25/17</td>
</tr>
<tr>
<td>Name of Responsible Person</td>
<td>Kenneth R. Salsbery</td>
</tr>
<tr>
<td>Location of Procedure</td>
<td>Lab 333</td>
</tr>
</tbody>
</table>

#2 THIS STANDARD OPERATING PROCEDURE (SOP) IS FOR A:

- [ ] Specific laboratory procedure or experiment
- [x] Generic laboratory procedure that covers several chemicals
- [ ] Generic use of specific chemical or class of chemicals with similar hazards

#3 PROCESS OR EXPERIMENT DESCRIPTION:

High vacuum is used to remove volatile solvents from flasks.

<table>
<thead>
<tr>
<th>Frequency:</th>
<th>one time □ daily [x] weekly □ monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ other: ____________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration per Expt:</th>
<th>________ minutes; or 1-10 hours</th>
</tr>
</thead>
</table>

For assistance with this form contact NIU Environmental Health and Safety, 815-753-0404.
#4 SAFETY LITERATURE REVIEW & HAZARD SUMMARY

- Overheating of Vacuum Pump
- Oil Leaks
- Solvent Inhalation

#5 STORAGE REQUIREMENTS

None

#6 STEP-BY-STEP OPERATING PROCEDURE

1. Submerge Chemical Trap in Dry CCP/Acetone Bath
2. Make sure stop cocks are in the off position
3. Turn on Vacuum Pump

1. Don personal protective equipment.
   - ☑ appropriate street clothing (long pants, close-toed shoes)
   - ☑ gloves; indicate type: Latex/nitrile
   - ☐ safety goggles ☐ safety glasses ☐ face shield
   - ☑ lab coats
   - ☐ other: ____________________________

2. Check the location and accessibility of the safety equipment that serves your lab:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Fume Hood/Glove Box or other Ventilation Control</td>
<td>Location: Lat 333 Fume Hood</td>
</tr>
<tr>
<td>Eyewash/Safety Shower</td>
<td>Location: Eyewash / Wash sink Safety Shower: hallway outside of lab</td>
</tr>
</tbody>
</table>
5. Dispose of hazardous solvents, solutions, mixtures, and reaction residues as hazardous waste. See EH&S Hazardous Waste Program
http://www.ehs.niu.edu/ehs/chemical/waste.shtml

6. Clean up work area and lab equipment.

7. Remove PPE and wash hands.

#8 TRAINING REQUIREMENTS

General Training (check all that apply):
- ☐ General Safety & Emergency Preparedness
- ☐ Chemical Safety for Laboratories
- ☐ Radiation Safety
- ☐ Biosafety training
- ☐ Other: ____________________________

Location Where Records Maintained: ____________________________

For assistance with this form contact NIU Environmental Health and Safety, 815-753-0404.
### Laboratory-specific training (check all that apply):
- [x] Review of SDS for other chemicals involved in process/experiment
- [ ] Review of this SOP
- [ ] Other: __________________________

<table>
<thead>
<tr>
<th>Location Where Records Maintained</th>
<th>Stock Room</th>
</tr>
</thead>
</table>

### PRIOR APPROVALS

Prior approvals are required by the following University Committees:

- **Radiation Safety Committee:** Radioactive material.  
- **Radiation Safety Committee:** X-Ray machines  
- **Laser safety:** Laser producing equipment Class 3b or above.  
- **IACUC:** Animal use in research  
  [http://www.orc.niu.edu/orc/animal_research/index.shtml](http://www.orc.niu.edu/orc/animal_research/index.shtml)
- **IBC:** Recombinant DNA, potential pathogens, human tissue/body fluids  