## Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

All UNC Shops

### JOB SAFETY ANALYSIS TOPIC:

**Polyurethane Use**

<table>
<thead>
<tr>
<th>Title</th>
<th>Work Task</th>
<th>Hazards</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre plan the work</strong></td>
<td>1. Schedule work for off-hours if possible</td>
<td>• PPE donned improperly could result in injury</td>
<td>• Training on use of Polyurethane coatings</td>
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<td></td>
<td>2. Coordinate with facilities manager and EHS to ensure proper notices have been sent to building occupants</td>
<td>• Damaged or broken parts could cause leaks, spills, or create unsafe conditions</td>
<td>• PPE training</td>
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<td></td>
<td>3. Select a proper polyurethane for the specific job</td>
<td></td>
<td>• Review Safety Data Sheet to determine PPE needed and hazards associated with specific product</td>
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<td></td>
<td>4. Select proper Personal Protective Equipment (PPE)</td>
<td></td>
<td>• Read material label</td>
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<tr>
<td><strong>Before the job</strong></td>
<td>5. Don PPE</td>
<td></td>
<td>• If proper ventilation cannot be established, use gloves, Tyvek suit, and a half-face respirator with organic vapor cartridges</td>
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<td></td>
<td>6. Check containers and equipment for broken or damaged parts</td>
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<td>7. If ladders are used, ensure ladder functions properly</td>
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<tr>
<td><strong>Site Preparation</strong></td>
<td>8. Ensure work area is properly ventilated</td>
<td>• An unclear workstation creates slip/trip/fall hazards</td>
<td>• Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended limits</td>
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<td></td>
<td>9. Ensure work area is clear of slip/trip/fall hazards</td>
<td>• If area is not properly ventilated polyurethane vapors could cause health effects</td>
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</tr>
</tbody>
</table>
### Varnishing the Surface

10. Apply as many coats as needed to varnish the surface  
11. Allow varnish to completely dry before removing any ventilation controls  

- If ventilation is removed too early, area could contain airborne hazards  
- Follow the recommendations for drying times for each product

### Clean-up

12. Clean brushes and equipment with approved products  
13. Wash hands, forearms, and face thoroughly after handling products  
14. Any contaminated clothing should be properly cleaned and should not leave the work place  

- Rags, steel wool, or other waste soaked with this produce can be flammable  
- Use only the recommended cleaning products as some may not be compatible and cause reactions  
- Do not allow waste to accumulate  
- Dispose flammable waste in accordance with local fire regulations

### Training

Employees must receive training on this JSA, PPE, ladder use, painting safety. EHS website at [http://ehs.unc.edu/training/self-study/](http://ehs.unc.edu/training/self-study/)  

Supervisor is responsible for ensuring the employee reviews the JSA and the EHS website guidelines.

### Created

Taylor Moore, March 15, 2019

### Referenced Material

EHS Website; Sherwin-Williams Safety Data Sheets

### Contact Info

For more information about this JSA and other JSAs, contact:  
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