

<p><b>U.S. Department of Agriculture</b> <b>Forest Service</b></p>	<p><b>1. WORK PROJECT/ACTIVITY</b> Use of Acid/Base Bath for cleaning glassware</p>	<p><b>2. LOCATION</b> Room 235 &amp; 236, Grand Rapids Lab Forestry Sciences Laboratory</p>	<p><b>3. UNIT</b> NRS-07</p>
<p><b>JOB HAZARD ANALYSIS (JHA)</b> References-FSH 6709.11 and -12 (Instructions on Reverse)</p>	<p><b>4. NAME OF ANALYST</b> John T. Larson</p>	<p><b>5. JOB TITLE</b> Chemist</p>	<p><b>6. DATE PREPARED</b> July 2013</p>
<p><b>7. TASKS/PROCEDURES</b></p>	<p><b>8. HAZARDS</b></p>	<p><b>9. ABATEMENT ACTIONS</b> Engineering Controls * Substitution * Administrative Controls * PPE</p>	
<p>Use of Acid/Base Bath for Cleaning Glassware</p>	<p>Handling of Chemicals</p>	<ul style="list-style-type: none"> <li>• Read and understand Chemical Handling JHA</li> <li>• Review MSDS of Acid/Base in use</li> </ul>	
	<p>Inhalation of noxious acid/base fumes</p>	<ul style="list-style-type: none"> <li>• Ensure area is properly ventilated</li> <li>• Ensure cover to bath is kept on when not in use</li> </ul>	
	<p>Eye/Skin contact with acid/base solutions</p>	<ul style="list-style-type: none"> <li>• Wear proper PPE in addition to basic laboratory PPE. This includes goggles, lab coat, plastic apron, acid/base proof gloves, sleeve protectors, and face shield.</li> </ul>	
	<p>Spilling of Acid/Base Solution</p>	<ul style="list-style-type: none"> <li>• Ensure no injuries due to spillage. If injuries occur, attend to injured and remove from exposure.</li> <li>• Notify Laboratory Supervisor.</li> <li>• Turn fume hoods on to assist in ventalation of any fumes.</li> <li>• Using proper neutralizing absorbant, create dam around spill to contain.</li> <li>• Slowly add neutralizing absorbant to spill until entire spill is neutralized and absorbed.</li> <li>• Clean up absorbant, bag and dispose of properly</li> </ul>	
<p><b>10. LINE OFFICER SIGNATURE</b></p>	<p><b>11. TITLE</b></p>	<p><b>12. DATE</b></p>	

**JHA Instructions (References-FSH 6709.11 and .12)**

The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of the appropriate line officer approving the JHA. The line officer acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.

Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.

**Block 7:** Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP).

**Block 8:** Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example:

- a. Research past accidents/incidents.
- b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature.
- c. Discuss the work project/activity with participants.
- d. Observe the work project/activity.
- e. A combination of the above.

**Block 9:** Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method:

- a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture.
- b. Substitution. For example, switching to high flash point, non-toxic solvents.
- c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.
- d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, and portable water pumps).
- e. A combination of the above.

**Block 10:** The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.

Blocks 11 and 12: Self-explanatory.

**Emergency Evacuation Instructions (Reference FSH 6709.11)**

Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite.

Be prepared to provide the following information:

- a. Nature of the accident or injury (avoid using victim's name).
- b. Type of assistance needed, if any (ground, air, or water evacuation).
- c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks.
- d. Radio frequencies.
- e. Contact person.
- f. Local hazards to ground vehicles or aviation.
- g. Weather conditions (wind speed & direction, visibility, temperature).
- h. Topography.
- i. Number of individuals to be transported.
- j. Estimated weight of individuals for air/water evacuation.

The items listed above serve only as guidelines for the development of emergency evacuation procedures.

**JHA and Emergency Evacuation Procedures Acknowledgment**

We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents:

SIGNATURE      DATE

SIGNATURE      DATE

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