

## Sample Washing, Slide-making, and Storage of Phytoliths in Ethanol

| Standard Operating Procedures for Chemicals or Processes   |  |
|--|--|
| 1 Process<br>(if applicable)                               | Sample washing, slide making, and storage of phytoliths in ethanol (95%).  |
| 2 Chemicals  | Ethyl alcohol or ethanol, denatured, 190 proof. Ethanol (95%) is flammable both as a liquid and a vapor. Exposure can cause eye, skin, and respiratory tract irritation as well as adverse reproductive and fetal effects in humans. It may be absorbed through intact skin and may cause central nervous system depression. May cause blindness if swallowed. May cause liver and kidney damage.  |
| 3 Environmental/<br>Ventilation Controls                   | Closed containers (polypropylene centrifuge tubes with lids screwed on / glass vials) handled in lab (HCK 406) without special ventilation measures (vented to atmosphere). This handling includes centrifuging the tubes at up to 3800 rpm in a bench top centrifuge located outside the fume hood. Fume hood in HCK 406 is used for chemical handling with open containers (centrifuge tubes, glass beakers, vials). Any handling of ethanol outside of the fume hood is limited and done with closed containers.  |
| 4 Personal<br>Protective<br>Equipment (PPE)                | Lab coat, long pants, closed-toed shoes, double gloves (vinyl gloves + nitrile gloves), safety goggles.  |
| 5 Special Handling<br>Procedures & Storage<br>Requirements | Unused chemicals are stored in a 5-gallon flammable liquids safety can in a specially designed and designated flammable substance storage cabinet. In addition, small amounts (5 ml) of ethanol are stored in polypropylene centrifuge tubes or glass vials with lids screwed on, either on lab benches or in flammables cabinet. Ethanol waste, which consists of a mix of ~90% ethanol and ~10% water, is stored in a 4 L HDPE storage bottle in the fume hood or sealed and stored in the designated flammable cabinet beneath the fume hood.   |
| 6 Spill and Accident<br>Procedures                         | <p>In the event of a spill, clean up immediately. If the spill is large, isolate area and deny entry. Provide ventilation. Care should be taken to avoid direct body contact and inhalation. Carefully wipe up spill. Approach spill from upwind. If spill is too large to safely clean up, leave the room and call the UW Safety - RMMC at 307-766-3698.. If exposed, remove contaminated clothing and shoes, and flush skin with plenty of water for at least 15 minutes. If someone is incapacitated, call 911 and initiate first aid if possible.</p> <p>Fire Fighting Measures: For small fires, personnel trained in the use of the lab fire extinguisher may attempt to put out fire. In the event of a large fire, or if no trained personnel are present, evacuate the premises and call 911 immediately.</p> |
| 7 Waste Disposal   | For spills: place used absorbent in 4 L HDPE storage bottle. For all waste, label with Hazardous Waste Label, accumulate according to requirements, and send in the Waste Request form located at <a href="http://www.uwyo.edu/safety">http://www.uwyo.edu/safety</a>  |

# Individual Chemical SOP Example



**University of Wyoming Safety**  
 Web: [www.uwyo.edu/safety/](http://www.uwyo.edu/safety/)  
 Phone: (307) 766-3277  
 Email: [uwehs@uwyo.edu](mailto:uwehs@uwyo.edu)  
**Regulated Materials Management Center**  
 Phone: (307)766-3698 Fax: (307)766-3699  
 Email: [HAZMAT@uwyo.edu](mailto:HAZMAT@uwyo.edu)

|  |   |                              |  |
|--|---|------------------------------|--|
| 8 Special Precautions for Animal Use (if applicable) | N/A                                     |                              |  |
| Particularly hazardous substance involved?           | <input type="checkbox"/> YES:           | Blocks 9 to 11 are Mandatory |  |
|  | <input checked="" type="checkbox"/> NO: | Blocks 9 to 11 are Optional. |  |
| 9 Approval Required                                  |   |                              |  |
| 10 Decontamination                                   |   |                              |  |
| 11 Designated Area                                   |   |                              |  |
| Name (print) (Assessor):                             |   | Title:                       |  |
| Signature (Assessor):                                |   | Date:                        |  |
| Name (print) (PI, Lab Manager, or Unit Head):        |   | Title:                       |  |
| Signature (PI, Lab Manager, or Unit Head):           |   | Date:                        |  |
| Date Sent to UW Safety:                              |   |                              |  |