



UNC
ENVIRONMENT,
HEALTH & SAFETY

Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

JOB SAFETY ANALYSIS TOPIC:

Solmetex Hg5 Series Collection Container
Changeout



Title	Work Task	Hazards	Controls
Preplan the Work	<p>Ensure container is ready for change (Annual swap or full line reached)</p> <p>Obtain and inspect necessary PPE (Latex/Nitrile Gloves) to confirm it is safe to use. Wear protective eyewear and clothing if there is a splash hazard.</p> <p>Obtain the tools and Solmetex Recycle Kit.</p>	<p>Improper PPE Inspection</p> <p>Leaking Containers</p>	<p>Take time to make sure PPE is safe (no punctures in the gloves, latex or nitrile brittle due to age or other factors)</p>
New Container Prep and System Check	<p>Read the vacuum gauge before removing container to ensure proper suction</p> <p>Remove new container from plastic sleeve, unscrew recycle cap and remove red plugs</p>	<p>Improper plug removal could result in the systems inability to work effectively</p>	<p>Double check the container to ensure the plugs are removed and the container is ready for the desired application</p>



<p>Changing the Container: Removal of Old Container</p>	<p>Don PPE</p> <p>Keep the vacuum system running and do the following steps:</p> <p>1 - Begin removal by supporting the attached container with one hand and removing the retaining pins with the other hand</p> <p>2 -Tilt the collection container to the side to release it away from the vacuum</p> <p>3 -Pull down to release the collection container</p> <p>4 -Push the two red plugs into top of container, screw down recycle cap until O-ring seal is no longer visible and cap is flush against the container.</p>	<p>Pinch Hazards from placing snap caps on the container</p> <p>Possible Exposure Hazards – Mercury absorption through skin</p> <p>Spill Hazard from dropping the container before it is sealed</p>	<p>Be aware of your hand placement when removing the container</p> <p>Keep PPE on during the whole procedure</p> <p>Ensure the caps are firmly in place to avoid spilling the contents of the container</p>
<p>Changing the Container: Installing the New Container</p>	<p>Keep the vacuum system running and do the following steps:</p> <p>1 -Begin installation by checking the alignment of the fittings to the receiving holes on the main unit (It can only fit one way)</p> <p>2 -Gently insert the fittings into the receiver holes. Slightly rock the collection container and the O rings should seat into the upper unit receivers</p>	<p>Pinch Hazards</p> <p>Possible Exposure Hazards – Mercury inhalation or absorption</p>	<p>Be aware of hand placement when pushing the container to the main unit and when inserting retainer pins</p> <p>Wear proper PPE to prevent unnecessary exposure</p>

	<p>3 -Continue to push the container until it is fully sealed with the main unit</p> <p>4 -Reinsert the retaining pins into their holes until they are seated. This will lock the container in place</p> <p>5 -Fill out label information, “Date Installed” and “Next Change Due”.</p> <p>6 -Check vacuum gauge reading to ensure it is adequate.</p> <p>7 -Visually inspect the collection container weekly to check waste level. Log inspection date. Change container when waste reaches full line or annually, whichever occurs first.</p>		
<p>Recycling Process</p>	<p>Ensure the clear snap caps are firmly in place from the previous step</p> <p>Place the sealed full collection container into the recycle return box between the corrugated end caps.</p> <p>Close the return shipping box and prepare for shipment. Follow enclosed shipping instruments including obtaining shipping label. Ship immediately, if possible. If</p>	<p>Possible Exposure Hazards – Mercury inhalation or absorption</p> <p>Pinch Hazards from placing snap caps on the container</p>	<p>Continue to wear the necessary PPE throughout this process</p> <p>Be conscious of hand placement when completing the necessary steps</p>

	shipping is delayed, place in area under the control of waste generator, e.g. locked room.		
Training	Employees must have hands on training in the proper use of this piece of equipment.	Supervisor is to fill out the ‘Supervisor Led Training Form’ and turn in the form to UNC-CH Environment, Health and Safety for documentation of proper training.	
Created By	Cory Kirkland, Facilities Safety Officer Updated by David Catalano, April 2020 Kim Haley, June 2022		
Referenced Material	Solmetex NXT Hg5® Collection Container Replacment & Recycle Procedure		
Contact Info	For more information about this JSA and other JSAs, contact: <i>UNC-CH Department of Environment, Health and Safety</i> 1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650 (919) 962-5507 ☎ http://ehs.unc.edu		 