

Appendix MERCURY: Mercury Spill Response Guide

In the event of a mercury spill, follow these procedures: **RESCUE, CONTAIN, REPORT, SECURE, CLEAN UP**

RESCUE

- Alert others in the area of an ongoing mercury spill and keep others away from the spill area.
- Help others evacuate by providing assistance. Help remove any victims from the spill area to fresh air but do not endanger yourself by entering a potentially toxic atmosphere or failing to wear appropriate personal protective equipment (PPE).
- Before exiting the room or area, inspect your clothing and shoe bottoms for signs of mercury contamination, such as the presence of small, spherical metallic-colored beads.
- Using gloved hands, remove contaminated clothing and place in plastic bags, if possible, and leave the clothing or bag of clothing near or inside the spill area or room.
- If **mercury contacted the skin**, wash contaminated skin with soap and water or use a safety shower for 15 minutes.
- If **mercury is in the eye**, use a safety eyewash to flush eyes for 15 minutes or more.
- If **aerosolized mercury is inhaled**, immediately go to an area with fresh air and breathe fresh air until help arrives.
- Immediately get medical assistance for the victims by calling the University Police Department (UPD) at **911** from a SJSU phone OR **408-924-2222** from all other telephones. Inform UPD about any injured person and that mercury was involved with the spill. Never return to an area of a chemical spill once you have vacated the contaminated area.

CONTAIN

- Contain the spill to an area or room, if possible, so that an emergency response may be planned.
- If it can be done safely, put down universal absorbent pads to stop or slow the spread of an ongoing release. This helps to minimize the spill area by preventing mercury from spreading to floor drains or sinks, cracks or crevices, onto sloped or porous surfaces, or any other inaccessible areas.
- Do not allow mercury to go down sink or floor drains by plugging sinks/drains if can be done safely.
- If the spill is no longer actively spreading, simply isolate the area by closing the chemical fume hood, closing interior room doors, or closing hallway and/or exterior doors to prevent the spread of hazardous fumes and vapors.

REPORT

- For small spills (e.g., <2 thermometers), contact your Department Safety Officer or Leadership to report the mercury spill and request additional assistance.
- Provide important information, such as your name, telephone number, physical location from which you are reporting, physical location of the incident/spill (e.g. building and room number), time and type of incident (e.g. mercury spill with or without injury), quantity of mercury involved if known, the extent and severity of any injuries, presence of additional hazards in the area (e.g. open ignition sources), and the safest route to approach spill area.

SECURE

- If it can be done safely, work with your coworkers to block entrances to the spill area in order to prevent others from entering until emergency responders arrive or the spill can be cleaned up.
- Caution tape and signs can serve as useful tools in preventing others from entering the contaminated spill area.

Need Help?

- Ask the primary investigator or instructor
- Ask the department/college safety staff
- Ask SJSU Environmental Health & Safety
 - Environmental Compliance Specialist: david.griffith@sjsu.edu
 - Director: ehs@sjsu.edu; 408-924-1969

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CLEAN UP

For small mercury spills smaller than two thermometers and are not actively spreading, as determined by your professional judgment in conjunction with Department Safety Officer or Leadership, proceed to clean up the spill by doing the following:

- Locate the mercury spill kit or chemical spill kit located in the area to obtain supplies and PPE.
- Put on nitrile gloves, a lab coat or other additional layer of body protection, and eye protection, such as goggles.
- Put on shoe covers or cover your shoes with a plastic bag while considering that this can create a slipping hazard. Never walk around a spill area without shoe covers and never walk inside or through the contaminated spill area.
- Inspect the area at least one foot outside the suspected contaminated area with a flashlight to determine the extent of the contamination by looking for mercury beads. Turning off lights helps to illuminate smaller droplets. Mercury beads are small, spherical metallic-colored and the flashlight will reflect shiny light on mercury beads.
- If you cannot find the mercury or determine the spill area, call UPD or EHS to request assistance.
- Never use a regular household vacuum or sweep up a mercury spill. This will create toxic fumes in your breathing zone.
- Always work from the outside of a spill area to the center of the spill.
- Use a scraper to push scattered mercury beads together into larger beads or droplets.
- Aspirate larger mercury droplets using a syringe aspirator and place them inside a sealable bag or container.
- If broken glass is present, carefully collect the glass using a thick piece of paper, tong, tweezers, or other tool to prevent injury. Tape jagged broken glass shards and pieces and place them inside same bag or container with mercury beads and droplets.
- Sprinkle mercury-absorbing powder (Mersorb) lightly over the area to absorb smaller mercury droplets. Spray water mist over the mercury absorbing powder to activate OR review absorbing powder product instructions.
- Use a scraper to mix the materials into a paste, scoop up the paste, and place the materials in a waste mercury bag or container.
- Wipe down surfaces with damp sponge and place in waste mercury spill debris bag or container.
- While wearing protective gloves, remove shoe covers and other PPE then combine with waste mercury debris.
- Before exiting the room or area, inspect your clothing and shoe bottoms for signs of mercury contamination. Remove any contaminated clothing and place them in a separate bag from the waste mercury debris. Leave the bag of clothing near or inside the spill area or room then wash your hands.
- Department Safety Officer or EHS will use monitoring equipment to determine if clothing is mercury contaminated.
- Label bags of mercury debris or suspected mercury-contaminated clothing with a SJSU Hazardous Waste Label. Identify waste by listing “Mercury Spill Debris” or “Suspected Mercury Contaminated Clothing” as the General Description, write “Mercury” under Contents, and write the date of spill as the accumulation start date.
- Report the spill to EHS immediately if air monitoring is needed and ensure access to the spill area is restricted. Use caution as trace amounts of mercury vapors may exceed regulated exposure limits in the workplace. If air monitoring is not needed, report spill to EHS within 48 hours and to coordinate pick-up of labeled spill debris.

Larger Spills

Immediately contact UPD/EHS for larger spills. A mercury recovery vacuum will be used to capture most of the spilled materials and mercury. If mercury is still present above regulatory thresholds, an outside mercury spill response contractor may be needed to complete the final clean-up and decontamination of the area

Mercury Spill Kit Recommended Contents – Areas using Mercury Devices with Liquid Mercury

- Nitrile Gloves – 10 pairs (Sizes XL and M)
- Mersorb or other Mercury Absorbent – 1 lb.
- Mercury Aspirator and Waste Bottle
- Universal Absorbent Pads – 1 box or 20 squares
- Dustpan and Brush Set – 1 set
- Plastic Bags (5-gallon or 30-gallon size) – 2 each
- Plastic Scoop – 1 each
- Splash Resistant Goggles – 1 each
- Purchase Mercury Spill Kit – 1 each
- Duct Tape



Mercury Waste Bottle



Mercury Spill Kit