DEQ Procedure

Chemical Spill Cleanup

Effective Date: *September 1, 2020*	Procedure Number: 040.038.PROC.2020
Next Scheduled Revision Date: *As needed*	Version: *1*

State of Oregon Department of Environmental Quality

Intent/Purpose/ Statement of Need	This procedure outlines the situations when staff can clean up spills in DEQ offices, and the steps to protect staff from exposure when cleaning up these spills.
Ownership	Central Services – Health & Safety
Applicability	This procedure applies to DEQ regional offices, Headquarters, and the Vehicle Inspection Program.
PROCEDURE	
Step 1– Assess scene and restrict access	Determine the size and nature of the spill. DEQ defines moderate and large spills as greater than one gallon and a small spill as less than one gallon. **Do not attempt cleanup of large or moderate spills**. **Moderate and large spills.** In the event of a moderate or large spill and/or strong odors, visible mists or vapors are present at the scene of the spill: • Alert people in the workplace that a spill has occurred and immediately isolate the area if possible by closing doors and windows and evacuate. • Contact the local fire department by calling 911. (Note that fire department capabilities for hazardous spill cleanup vary by municipality. Emergency responders may advise closuring the office until a suitable hazardous spill cleanup provider can respond). • Contact a DEQ Health and Safety team member as soon as possible. **Small spills.** If strong odors, mists or vapors are present, or you don't feel comfortable doing so, do not attempt to clean-up the spill. Take the following steps: • Alert people in the area that a spill has occurred and immediately isolate the area. • Contact your manager to assess the situation and/or a DEQ Health and Safety team member. • Contact the local fire department if necessary. If the spill is smaller than a gallon in size and you feel comfortable completing the cleanup, follow these steps to begin the cleanup process: • Use barrier tape or another suitable method to restrict access to the area of the spill. • Determine the chemical's identity by reading the label or reviewing your workplace chemical inventory list. • Retrieve and review the SDS noting the accidental release measures and PPE section.

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- Determine whether there is broken glass present in the spill area. If there is, find a cardboard box or equivalent to place the cleanup debris in. The box is to prevent injury from glass slicing through the disposal bag.

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<tr><td>Step 2 – Locate and prepare spill kit</td><td>

- Locate the Spilfyter chemical spill kit and take to the area of the spill.

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<tr><td>Step 3 – Personal protective equipment</td><td>

- Put on the eye goggles in the chemical spill kit to protect your eyes from potential splashes of chemicals or spill clean-up kit chemicals.
- Examine disposable gloves for tears or punctures before use. Blow into each glove and close it off at the collar, if the glove holds your breath like a balloon, it provides an effective barrier. Put on gloves.

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<tr><td>Step 4 – Spill cleanup</td><td>

For spills containing acid and bases follow these steps:

- Prepare the yellow disposal bag
- Locate the liquid neutralizer bottles in the chemical spill kit.
- Select either the neutralizer for acids or neutralizer for bases depending on the hazardous chemical to be cleaned up.

The table below lists acids and bases commonly stored in DEQ workplaces.

DEQ Chemical Spilled	Spilfyter Product to Use
Sulfuric Acid	Liquid Neutralizer for Acids
Nitric Acid	Liquid Neutralizer for Acids
Household Bleach	Liquid Neutralizer for Bases
Hydrochloric Acid	Liquid Neutralizer for Acids
PH Buffer 4.0, Red	Liquid Neutralizer for Acids

- Screw the spray trigger onto the bottle of neutralizer and spray the area of the spill. A color change indicates neutralization of the spilled chemical.
  - Acid – neutralization color change is red to purple
  - Base – neutralization color change is red to yellow
- When neutralization is complete:
  - Remove Aqualockit absorbent bottle from the spill kit
  - Open the bottle and sprinkle enough material to cover the entire spill
  - The absorbent material will begin to absorb the spill
- After absorption is complete:
  - Remove the plastic scoop and brush from kit
  - Sweep the absorbent material and any glass chards into the scoop
  - Discard all items into yellow disposal bag (Repeat sweeping until all material is gone).
  - Discard plastic scoop and brush into yellow disposal bag
  - To prevent injury place the disposal bag into a cardboard box if there is glass present.
- Clean any residual liquid and absorbent:

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	○ Use a soap and water solution ○ Absorb solution using common paper towels ○ Discard the used paper towel into yellow disposal bag • Proceed to step 5 of this procedure **For spills containing powered or crystalline chemicals follow these steps:** • Prepare the yellow disposal bag • Remove the plastic scoop and brush from the kit • Sweep the powdered or crystalline chemicals and any glass chards into the scoop. Repeat if necessary. • Discard all items into yellow disposal bag. • To prevent injury place the disposal bag into a cardboard box if there is glass present. • Clean the area with a soap and water solution. • Absorb using common paper towels. • Discard paper towels into the yellow disposal bag. Repeat process once. • Proceed to Step 5 of this procedure
Step 5 – PPE removal	**Follow these steps to removes gloves:** • Grasp the outside of one glove at the wrist. Do not touch your bare skin. • Peel the glove away from your body, pulling it inside out. • Hold the glove you just removed in your gloved hand. • Peel off the second glove by putting your fingers inside the glove at the top of your wrist. • Turn the second glove inside out while pulling it away from your body, leaving the first glove inside the second. • Discard gloves into yellow disposal bag. • Seal off the disposal bag with the supplied tie and set aside. • Wash your hands immediately after tying off bag. Remove goggles and clean with a mild soap and water solution. Set aside to air dry.
Step 6 – Disposal of cleanup items, notification, and final actions	• Remove barrier from the area of the cleanup. • Inform others in the area that cleanup of the spill is complete and the area is safe. • Contact health and safety for supplies to re-stock spill kit, and to discuss disposal options.
Definitions	**Consumer-use Chemical:** A chemical that is non-hazardous based on its occupational usage characteristics as defined by Oregon OSHA. **Hazardous chemical:** Any chemical that is a physical hazard or health hazard. **Hazardous chemical inventory:** A list of hazardous chemicals known to be used or stored at a specific location. **Material safety data sheet (MSDS):** Contains descriptive information about hazardous chemicals.

	Personal protective equipment (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard. **Safety data sheet (SDS):** Contains descriptive information about hazardous chemicals. **Sharps:** Any device or object that can puncture or lacerate the skin. **Small Spill:** A liquid chemical spill, or powdered/ crystalline solid chemical spill that is considered to be 1 gallon or less in overall volume and does not possess a strong odor, or have visible mists or vapors present.
Records Management	All documents related to this procedure must be retained according to state general and DEQ-specific retention schedules.
History	Effective: September 1, 2020
Resources	How to remove gloves – CDC Policy #040.014.2020 – Chemical Safety Policy