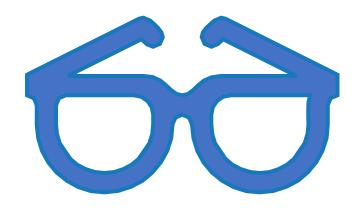
Chemical Spill Response



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Nuisance Spills

- Less than 4 Liters of a known material that you have the ability to clean up
 - assess the hazard
 - wear appropriate PPE



Nuisance Spills Spill Response

- 1. Alert people in immediate area of spill
- Wear appropriate protective gloves, goggles, long sleeve lab coat
- 3. Avoid breathing vapors from the spill
- 4. Confine spill to small area & absorb on absorbent pads &/or kitty litter
- 5. Clean spill area with soap & water
- 6. Collect all contaminated absorbent, gloves & residues in plastic bag lined garbage can
- 7. Label and dispose of properly

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Potentially Hazardous Spills

Greater than 4 Liters

- Carcinogens-"cancer-causing" agent
- flammable liquids or metals
- compounds of unknown toxicity

Greater than 4 Liters

Potentially Hazardous Spills



- Attend to injured or contaminated persons and remove them from the exposure if you can do so without endangering yourself
- Alert persons in the immediate area to evacuate - be aware of your Emergency Response Plan
- If spilled material is flammable, turn off heat and ignition sources
- Close doors to affected area
- Call 000

Preventing Spills

- Eliminate clutter
- Know proper work practices for biological, chemical materials you use
- Use unbreakable secondary containers
- Store chemicals properly
- Dispose of waste and excess chemicals in a timely manner



You are the Expert on the Hazards of the Materials in your possession.

Know	The properties of biologicals/chemicals you use before you handle them
Know	The appropriate work practices are & use them
Know	The worst-case scenario is for a spill of the chemicals you use
Think About	How you will react to a spill of the materials you use
Know	The appropriate clean-up procedures are for the materials you use



Summary



Know the properties of all the hazardous materials you handle

Prevent spills

If a potentially hazardous spill occurs, protect people first, evacuate & ask for help

Call 000 in the event of an emergency

Refer to Emergency Response Plans & SDS for further information

You are responsible for reporting or cleaning up spills of materials you use

Using Spill Kits





Spill Kits

Disposing of the used materials

A spill kit should also contain items to be used in the actual spill clean up. There should be a dust pan or scoop to pick up the absorbed spill. Plastic bags should be provided for your personal protective equipment waste. Kits should also have a pail or bucket for dealing with spill residue and waste. You should always refer back to the safety data sheet to make certain the materials you choose are compatible with the spills you might need to clean up. If they're not, your kit will need to be stocked with alternatives.

Along with the actual materials used to contain and clean up a spill, your kit should also contain disposal materials and instructions. The materials you have cleaned up can almost never be placed in a trash can along with regular waste.

Instead you will likely have to move it in hazardous waste bags to an appropriate waste facility or hire a waste collection agency to dispose of it for you.

Even with small spills it is never appropriate to simply throw the clean-up materials in the trash. Think of how quickly all of those little spills can add up to a big environmental hazard if they are simply thrown in the trash. Even if there is cost involved in disposal, it will be far less than the cost to the environment and public health or fines for improper disposal. Never let anyone convince you not to follow your training procedures when it comes to disposal of hazardous materials.



Absorbents are any mops, cloths, or other materials that are capable of absorbing a spill. Just as with other items in a spill kit, these absorbents are sometimes specifically designed to meet the needs of your industry and the chemicals that might spill. There are many all-purpose absorbents that can be used on most chemicals including those that have acids and bases. A spill kit might also contain an acid or base neutralizer.

Certain materials can be absorbed with simple materials like clay and sand. There are some corrosives that are quite dangerous and will require special materials to absorb them. The safety data sheet should be your guide to what absorbents are needed for the materials you use. Keep in mind that the materials in your workplace may require more then one type of absorbent. You should also always keep more on hand than you think will be necessary. Also, it should be part of your spill containment procedure to restock the spill kit immediately following its use.



PPE



Respiratory protection appropriate to your materials. Inhalation of caustic chemicals can cause long-term and devastating problems. The respiratory device might not be the most comfortable thing to wear, but it will protect you from these risks. The rule of thumb is when in doubt, wear it. It's better to be safe than sorry when it comes to chemical inhalation.



Corrosive resistant apron. You might wind up splashing chemicals on your body as you clean up the spill. In order to prevent chemical burns and stains, wear the corrosive resistant apron located in the spill kit.



Eye and face protection, usually goggles and a face shield. Some of the biggest dangers from chemicals come from getting them in your eyes. In addition to wearing protective eye and face equipment, you should also know exactly what to do in case of contact with the chemicals.



Gloves and booties that resist corrosion. You never want to touch any of these dangerous and corrosive materials with your bare hands. Remember, too, that some materials are strong enough to eat through your work gloves and boots. Put on the protective gloves and booties located in the spill kit to minimize your risk.



Disposable lab coat. By wearing this coat you ensure that none of the chemicals remain on your clothes and get carried home or to your vehicle. It can be disposed of with the cleaned up chemicals.



7 PILLARS OF SPILL MANAGEMENT



Being prepared can help avoid a spill or at lease increase efficiencies, minimising any errors that may occur in spill clean up.

- Familiarise with company procedures, compliance & regulatory requirements.
- Stock the correct PPE, storage and absorbent products.
- · Conduct risk assessments.



The most effective form of spill management is to identify & eliminate risks and hazards which have potential to cause spills.

- Know the difference between primary and secondary spill containment.
- What to look out for to prevent dangerous goods hazards.



Give your team the confidence to handle a spill by running training drills to practice how to respond.

- Train on step by step spill response techniques.
- Test PPE to ensure it fits properly and doesn't create reactions from staff such as allergies or claustrophobia.



Use the correct methods & material to respond effectively to hazardous spills.

- Ensure responders are properly protected with PPE.
- Contain and clean the spill.
- Decontaminate workers and equipment.



Correctly disposing of contaminated absorbents is vital to avoid further environmental damage.

- Be aware of how to correctly store used absorbents.
- Know when you should arrange collection of used absorbents.



Report your spill incident as per company procedures.

- Detail the nature the of the spill, including whether building evacuation was required.
- If pollution occurred report to the EPA.



7. RESTOCK

- Always replenish stock after an incident.
- Audit stock levels, checking expiry dates, every 6 months.

PREPARE RESPOND

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