

Emergency Spill Response Guidelines

ALWAYS FOLLOW COMPANY PRACTICES OR PROCEDURES

Workplace spills not only present potential hazards to workers but may also impact the environment resulting in costly cleanups. Responding to spills is an important part of an organization's health and safety program. Effective spill response includes procedures for response, proper training of employees and appropriate cleanup supplies and equipment. This document is intended to be a guideline and does not replace the need for appropriate training. Always follow your company's policies and procedures and consult your supervisor or safety professional should you have questions. Only properly trained, certified and equipped individuals should attempt the cleanup of hazardous, volatile, toxic or unknown materials.

Here are some helpful tips to remember when responding to a spill:

1. **Isolate and Evacuate**- warn nearby personnel of the spill, barricade and deny entry into the area. Make any necessary notifications to supervisors and other outside resources. Call 911 if there is a fire or medical emergency. Remove ignition sources of safe to do so.
2. **Identify and quantify**- before taking any actions make sure the scene is safe to proceed. Once it is deemed safe, gather information on the nature of the spill including the material(s) involved, estimated quantities and any potential hazards. Consult Safety Data Sheets (SDS) for information about the product.
3. **Select Personal Protective Equipment**- select appropriate PPE needed to safely clean-up the spill (chemical resistant clothing & gloves, aprons, shoe covers or boots, splash goggles, face protection, respiratory protection, etc.). All PPE and equipment (including sorbents) must be compatible with the spilled material. Contact the chemical manufacturer or refer to reference guides for assistance with the proper selection of PPE.
4. **Contain and Stop**- use sorbent socks, booms, pads or other suitable media to contain the spill and prevent further contamination. Stop the source of the release (repair damages, plug or patch the source, turn off source, etc.).
5. **Clean-up**- cover the spill with pads, pillows, neutralizers, powders or other appropriate material to reduce vapors and capture the product. Remove and replace saturated sorbents and repeat as necessary until the spill is completely cleaned up. Spent sorbents may be placed in temporary disposal bags then packaged into a suitable container such as a pail or drum.

6. **Dispose-** all waste material must be disposed of in accordance with applicable local, state and federal regulations.

Types of Spills

Not all spills are alike, it is important to know the types of fluids present at your facility so you may choose the best sorbent products to use. It is important to ensure the sorbents are compatible with the spilled product. For example, certain chemicals like acids and bases may react with sorbents containing organic media such as cellulose or corn-cob.

Oil & petroleum spills involve hydrocarbon substances such as gasoline, motor oil, diesel fuel, etc. These substances will generally float on water and tend to cluster together. “Oil-only” sorbents are hydrophobic, meaning they will repel water or water based fluids, making them an excellent choice to capture petroleum products from water. The most common “oil-only” sorbents are manufactured from polypropylene.

Universal sorbents are designed to be used on most any liquid spills including acids, bases, non-aggressive fluids, coolants, solvents, alcohols, water based chemicals and petroleum products. It is important to note that some universal sorbents are filled with media that may react with certain chemicals. Users must determine if sorbents are compatible with the liquids they are cleaning.

{Hydrofluoric acid and HF compounds will react with silicate absorbents. For this application, use a sorbent that is compatible such as Universal Neutralizing Sorbent and synthetic materials like polypropylene.}

Sorbents Types

Sorbent products are made from materials that recover liquid spills quickly, thus preventing the further spread of the release. Sorbents come in a variety of types for various applications including petroleum, universal and chemical uses. Here are the most common types of sorbents:

Pads and rolls are flat sheets of polypropylene material that may be used for extended periods of time or for a quick cleanup. They may be used to wipe up spills, line shelves, cover aisles and walkways in messy traffic areas or recover liquid spills. Many pads and rolls are perforated which allow the user to select the size for the proper application. Perforated rolls may be rolled out in 150 feet lengths or cut to a specific size.

Pillows are square or rectangular shaped and filled with media which allows them to soak up a larger volume of fluids. Some common applications include: recovery of pooled liquids, placement in drip pans, used under leaking valves and machinery or as a precautionary measure to prevent a possible spill.

Socks are versatile products that may be used to capture liquids, protect grates and drains and contain spills. They can be molded to wrap around leaking equipment or fit into corners. These cylindrical shaped objects are filled with sorbent media and vary in diameter and length.

Booms are similar to socks but are typically wider and longer and may be connected together. They are primarily used to contain spills on water and land but may also be used to capture large amounts of fluids.

Loose sorbents may be made from organic materials, minerals, clay and inert media or can be made of synthetic material. These may be used to contain small spills, soak up fluids or brushed over an area as the final step of the cleanup. Some loose sorbents contain agents that both neutralize and solidify corrosive chemicals making them safer to clean.

The Occupational Safety and Health Administration (OSHA) publishes requirements for the cleanup of spills and subsequent protection of employees. Those standards include:

29 CFR 1910.120- Hazardous Waste Operations and Emergency Response (HAZWOPER)

1910.120(j)(1)(vii)- U.S. Department of Transportation specified salvage drums or containers and suitable quantities of proper absorbent shall be kept available and used in areas where spills, leaks, or ruptures may occur.

1910.120(j)(1)(viii)-Where major spills may occur, a spill containment program, which is part of the employer's safety and health program required in paragraph (b) of this section, shall be implemented to contain and isolate the entire volume of the hazardous substance being transferred.

29 CFR 1926.441- Batteries and Battery Charging

1926.441(a)(5)-Face shields, aprons, and rubber gloves shall be provided for workers handling acids or batteries.

1926.441(a)(7)-Facilities shall be provided for flushing and neutralizing spilled electrolyte and for fire protection.

29 CFR 1910.178- Powered Industrial Trucks

1910.178(g)(2)-Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.

Additional federal state and local regulations may apply to the handling, packaging, transportation and disposal of waste and other materials associated with the cleanup of certain

chemicals. Check with your company's safety and environmental professional to ensure proper procedures are being followed.