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Laboratory Spill Response

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Document type: Procedure

I. PURPOSE AND OBJECTIVE:

The Laboratory Spill Response procedure describes the spill response training, laboratory practices for preventing spills, policy to follow for addressing employee injuries from a spill event, spill cleanup materials, and directions for the safe neutralization and removal of chemical and biologic spills.

II. GENERAL POLICIES:

A. **Training**

1. Employees are trained on safety polices within their assigned department and are required to participate in annual safety education modules that reviews spill response and hazardous chemical exposure. Department managers or designee train employees on:
    a. Location and usage of department spill kits, Personal Protective Equipment (PPE), fire alarms, fire extinguishers, safety showers, eye wash and emergency contact phone numbers.
    b. The Safety Data Sheets (SDS) for hazardous chemicals located within their assigned department.
        i. The SDS contains important information about each chemical such as hazards, health risks, and spill response, which will aid employees in the safe handling of chemicals.

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ii. The computer database that electronically stores the SDS and contains the department's hazardous chemical inventory is called MSDSonline and can be accessed on the Beaumont Intranet under the Documents menu option, Safety Data Sheets.

iii. See attachment section of this policy for directions on how to access the MSDSonline application and how to search for a chemical's SDS.

B. **Spill Prevention**

1. The Laboratory personnel practice cautious handling, storing and use of chemicals and biologic specimens to reduce the occurrence of spills. Reference the "Laboratory Spill Prevention" document in the attachment section of this policy for guidelines that can be taken to reduce the occurrence of spills.
2. Prior to transferring chemicals or biologic specimens into a secondary container or into a waste container, the employee determines if enough empty volume space remains for the transfer without spillage.
3. Liquid hazardous flammable chemical waste drums contains a drum volume gauge to help aid in determining if enough free volume space remains for the safe transfer of approved flammable chemical waste.

C. **Spill Injury Reporting**

1. If the employee was injured during the spill event or spill clean-up response, the employee and/or employee's manager/designee follows the Human Resource policy, Work Related Injury and Illness, to report the injury and for employee medical attention. Work Related Injury and Illness. The injury reporting form is located on the Beaumont intranet under the Applications menu option, Employee Health Incident Reporting login.

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III. DEFINITIONS:

A. Emergency (major) Chemical spill

1. An emergency chemical spill is a spill event that includes one or more of the following:
    a. is too large for one spill kit to contain.
    b. greater than one liter of material spilled.
    c. the chemical is unknown and/or the material is toxic for the employee to clean-up.
    d. occurs in a public place such as hallways or corridors.
    e. has the potential to spread to other parts of the building such as through the Heating, Ventilation and Air Conditioning system (HVAC).
    f. may endanger the environment such as reaching waterways or outside ground.

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g. immediate fire hazard.

h. involves mercury.

2. Emergency spills necessitates the immediate evacuation of the area concerned, if not the entire premises. Emergency spills present an immediate hazard including fire, explosion, or chemical exposure to hazardous materials. A large chemical spill requires an emergency response.

B. Simple (minor) Chemical spill

1. A simple chemical spill is a spill event that includes one or more of the following:

a. one that the laboratory staff can handle safely without the assistance of emergency personnel.

b. one liter of spilled material or less.

c. confined and is minimal hazards to health or the environment.

2. Minor spills can be managed by knowledge of the chemical involved in the spill, the chemical's SDS and using the department spill kit.

C. SPILLED

1. Acronym that is included in the employee safety training: **S**ecure the area, **P**rotect yourself, **I**nspect the spill, **L**ocate spill kit, **L**ay down barrier and absorbents, **E**xtract the spill clean-up waste, **D**ispose of waste according to the chemical's SDS.

D. Biological

1. Human or animal bodily fluids or materials such as blood, urine, vomit or feces.

E. Disinfectant

1. Chemical agents designed to inactivate or destroy microorganisms on inert surfaces. A common example of a disinfectant used in the Laboratory is 10% diluted bleach (see reference section of this policy). However, the Laboratory may purchase other types of approved disinfectants.

IV. PROCEDURE:

A. **Spill Kit:**

1. The supplies required for cleaning a spill are assembled into a kit (i.e., box, plastic container, cart) and stored in an accessible location, readily available for staff. Clearly label the storage area containing the spill kit so that staff can identify the location of the spill kit.

a. The kit contents: Spill clean-up agent, PPE (i.e., gloves, goggles, face shield, mask), small broom, dust pan, and biohazard bag to contain the post spill clean-up waste.

b. Common chemical spill agents include Spill X, SASCO and Amphomag (see attachment section of this policy for manufacturer's

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instructions). Spill agents must be handled in accordance with manufacturer's instructions. For the most up to date use, access the spill agent container, package inserts, or the manufacturer's website.

i. Amphomag is a single broad spectrum chemical spill agent that can be used to contain and neutralize most chemical spills.

ii. Spill X and SASCO spill agents are specific for the type of chemical spill and is labeled for the chemical category (i.e., Acid, Caustic, Base, Solvent, Aldehyde, Chloride).

c. If no expiration date is assigned to the chemical spill agents, then indicate the date it was put into service and the laboratory director or designee must periodically assess its usability.

i. During the annual Laboratory safety inspection, each campus Laboratory Safety Officer or designee will include an inspection of the department's spill kit(s) as part of the inspection checklist: Laboratory Annual Safety Assessments .

d. The "Chemical Spill Quick Guide" in the attachment section of this policy is posted in each department, near the department's spill kit, for guidelines on emergency treatment of chemical splashes and injuries and the control of chemical spills.

B. **Spill Exposure:**

1. If the spill or spill clean-up effort resulted in eye(s) or face/body exposure, follow Laboratory Emergency Eyewash and Shower Equipment. If hand(s) were exposed, wash hands immediately. If inhalation occurred, leave spill exposure area and seek fresh air immediately. Request help from Manager/Supervisor/coworker(s) and seek medical attention.

a. At the appropriate time, the department Manager or designee assists with documenting the injury in the Employee Health Incident Reporting form.

C. **Chemical Spill Response**:

1. Assess the spill:

a. Determine if the spill is considered emergency or simple.

b. Alert individuals in the surrounding area of the spill who could be impacted.

i. To help aid in the spill response and any possible injuries, request assistance from coworkers or Manager/Supervisor.

c. Identify the chemical(s) involved in the spill and consult the SDS for hazards, spill clean-up and PPE.

i. The spill information section in the SDS is found under the "Accidental release measures", section 6.

a. If the SDS spill response is incomplete, the manufacturer can be contacted for further

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information, if time allows. The manufacturer's contact information is located in section 1 of the SDS. The hospital Environment and Life Safety department may also be contacted for advice on how to proceed with the spill clean-up.

d. If safe and practical to do so, stop the spill or leak at its source and use absorbent material (i.e. rags, towels, spill socks) to contain the spill from spreading and to prevent flowing into floor drains.

2. Emergency (major) chemical spills:
    a. If the spill involves flammable chemicals, turn off any ignition and heat sources.
    b. Evacuate the spill area.
    c. Contact the campus security department to activate the emergency Hazardous Materials Incident system.
    d. The Security department and the Lab Manager/Supervisor will follow the directions in the Environment of Care policy Hazardous Material Spill Response Plan.

3. Simple (minor) chemical spills:
    a. Provide ventilation as described in the spilled chemical's SDS.
    b. Cleanup personnel use PPE as described within the chemical's SDS for spill response:
        i. E.g., goggles, mask, gloves, disposable lab coat or chemical resistant apron.
        ii. Avoid breathing in vapors.
    c. Locate the department spill kit, including broom, dust pan, and hazardous bags to contain the spill material.
    d. Proceed with the spill clean-up as instructed in the spill agent's manufacturer directions. Each type of spill agent manufacturer may have specific directions for the use of their product.
        i. In general, the directions for using a spill agent for chemical spills clean-up are:
            a. Encircle (dike) the chemical spill with the spill agent, then cover the entire spill with the spill agent.
            b. Allow the spill agent mixture to neutralize.
            c. Scrape mixture into dust pan.
            d. Place mixture into plastic bag.
                i. Dispose of spill mixture and clean up materials, including absorbents, as recommended by the chemical's SDS and in

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accordance with local, state and federal regulations. Place materials saturated with flammable liquids into containers that will limit the potential for combustion and subsequent fire hazards.

e. If safe and feasible, clean scraper and dust pan and return to spill kit. Otherwise, dispose of with the spill mixture and inform department manager so that replacement products can be ordered.

4. After the chemical spill clean-up and disposal, clean the surface with soapy water. Contact the Environmental Services Department (EVS) to determine if they can assist with floor mopping.
5. Dispose of contaminated PPE.
6. Post spill clean-up investigation and reporting
    a. The department Manager/Supervisor or designee:
        i. Investigate the spill event and determine if preventable measures need to be implemented to prevent future spills.
        ii. Document the chemical spill event in the safety reporting system, RL Solutions, by accessing the category "Hazardous Material Spill".
        iii. Communicate the spill event with the department staff and campus Laboratory Safety Officer.
    b. Campus Laboratory Safety Officer communicates the chemical spill event in the Laboratory Safety Committee meeting and, if applicable, the campus Environment of Care meeting.

D. **Biological Spill Response:**

1. Alert people in immediate area of the spill.
2. Cleanup personnel must wear proper PPE such as goggles, gloves, and laboratory coat.
3. Cover spill with absorbent material (i.e. paper towel).
4. Carefully pour laboratory provided disinfectant around the edges of the spill and then onto the spill, avoid splashing.
    a. Chemical spill agents such as Amphomag should not be used to disinfect biological spills.
5. Allow a 20 minute contact period with disinfectant.
6. If broken glass or plastic is present, use a broom and dustpan to remove the material and empty into a biohazard waste bin. Decontaminate the broom and dustpan with disinfectant.
7. Use paper towels to wipe up the spill, working from the edges into the center.

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8. Clean spill area with fresh paper towels soaked in disinfectant and then place paper towels in biohazard waste bin.
9. Access RL Solutions, using the "Lab/Specimen" category, to document biologic spills.

E. **Pneumatic Tube System Spill:**

1. On receipt of a pneumatic tube carrier within which a biological specimen or other fluid has spilled or leaked from the primary container, follow the directive given below for notification and clean-up.
    a. **If the spill has leaked from the carrier and is visible on the exterior of the carrier, page facilities maintenance to alert the facilities maintenance tube system personnel of potential system contamination.** Provide the tube station number from which the tube originated, as well as the tube station number of the final destination. If possible, provide information as to the nature of the material which was spilled.
        i. **Biological Specimens**
            a. Wear PPE. If the spilled fluid is a biological specimen (i.e. blood, urine, other body fluid), be sure to also wear a gown and goggles or a face-shield while cleaning-up the spill.
            b. Soak-up or wipe-up the spill with an adequate supply of paper towels; discard towels into a biohazard bag.
            c. DO NOT pick-up bits of broken glass, if any, by hand. Use paper towels to brush glass into biohazard bag. Discard the bag into a hard-side biohazard container.
            d. Discard contaminated foam inserts into the biohazard bag.
            e. Wash contaminated carriers (inside and out) with a hospital-approved disinfectant, allowing for the appropriate contact time. Rinse with tap water and dry.
            f. If there is carpet around the tube station and it becomes contaminated, soak the affected area with the appropriate hospital approved solution for 30 minutes then blot dry with paper towels. Contact Environmental Services to clean the carpet.
            g. Hard-surfaced floors: wipe with disinfectant; rinse with water; dry with paper towels
        ii. **Other Fluids**
            a. If the fluid is a water-based solution, that is NOT hazardous, wipe-up or soak-up the liquid with paper towels. Discard soiled towels into the ordinary trash.
            b. Soiled foam inserts with non-hazardous fluids: remove

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from the carrier, rinse well with water, squeeze water from foam and allow to air dry. Dry the carrier (inside and out) with paper towels.

c. If the fluid is hazardous, contact a manager or the Laboratory Safety/Chemical Hygiene Officer for assistance with clean-up using the appropriate spill-cleanup kit. Refer to the Laboratory Spill Clean Up Procedure and the Laboratory Chemical Hygiene Plan.

V. REFERENCES:

A. Laboratory new hire safety training checklist: Laboratory Education - New Hire Orientation .

B. Environment and Life Safety policies:

1. Hazardous Material Spill Response plan
2. Personal Protective Equipment - MIOSHA

C. Infection Prevention and Epidemiology: Bloodborne Pathogens Exposure Control Plan

D. Centers for Disease Control and Prevention (CDC) reference for cleaning and sanitizing with bleach: CDC Household Cleaning & Sanitizing and CDC Cleaning and Sanitizing with Bleach after an Emergency and guidelines for disinfection and sterilization in healthcare facilities Chemical Disinfectants

E. College of American Pathology (CAP) Laboratory General Checklist, current version

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Attachments

Accessing MSDSonline and search for SDS.pdf

Amphomag Spill Agent Instructions.pdf

Amphomag Spill Cleanup Poster Guide.pdf

Chemical Spill Quick Guide.pdf

Laboratory Spill Prevention Guide.pdf

SASCO Chlorine Acid Base Solvent Directions.pdf

SASCO PolyForm F Treatment Directions.pdf

SASCO Spill Control Product Directions.pdf

Spill-X Treatment Directions.pdf

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Approval Signatures

Step Description	Approver	Date
CLIA Site Licensed Medical Directors	Vaishali Pansare: Chief, Pathology	2/10/2023
CLIA Site Licensed Medical Directors	Ann Marie Blenc: System Med Dir, Hematopath	2/9/2023
CLIA Site Licensed Medical Directors	Jeremy Powers: Chief, Pathology	2/8/2023
CLIA Site Licensed Medical Directors	Muhammad Arshad: Physician	1/30/2023
CLIA Site Licensed Medical Directors	Ryan Johnson: OUWB Clinical Faculty	1/27/2023
CLIA Site Licensed Medical Directors	Kurt Bernacki: System Med Dir, Surgical Path	1/27/2023
CLIA Site Licensed Medical Directors	John Pui: Chief, Pathology	1/27/2023
Policy and Forms Steering Committee Approval (if needed)	Gail Juleff: Project Mgr Policy	1/27/2023
Policy and Forms Steering Committee Approval (if needed)	Jennie Green: Mgr, Division Laboratory	1/26/2023
	Sarah Britton: VP Laboratory Svcs	1/26/2023
Operations Directors	Elzbieta Wystepek: Dir, Lab Operations B	1/24/2023
Operations Directors	Amy Knaus: Dir, Lab Operations C	1/24/2023
Operations Directors	Brittnie Berger: Dir, Lab Operations C	1/23/2023
Operations Directors	Joan Wehby: Dir, Lab Operations C	1/19/2023
Operations Directors	Kimberly Geck: Dir, Lab Operations B	1/19/2023
Quality Best Practice	Jennie Green: Mgr, Division Laboratory	1/19/2023
	Jennie Green: Mgr, Division Laboratory	1/19/2023

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Accessing and using MSDS online

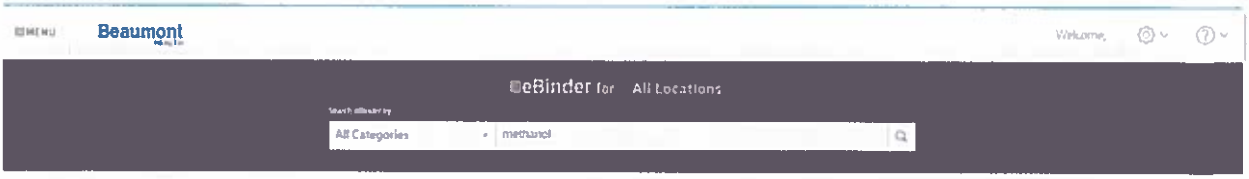
MSDSonline is an electronic database application that stores chemical Safety Data Sheets (SDS). The following are basic steps for accessing MSDSonline and searching for a SDS.

Accessing MSDSonline:

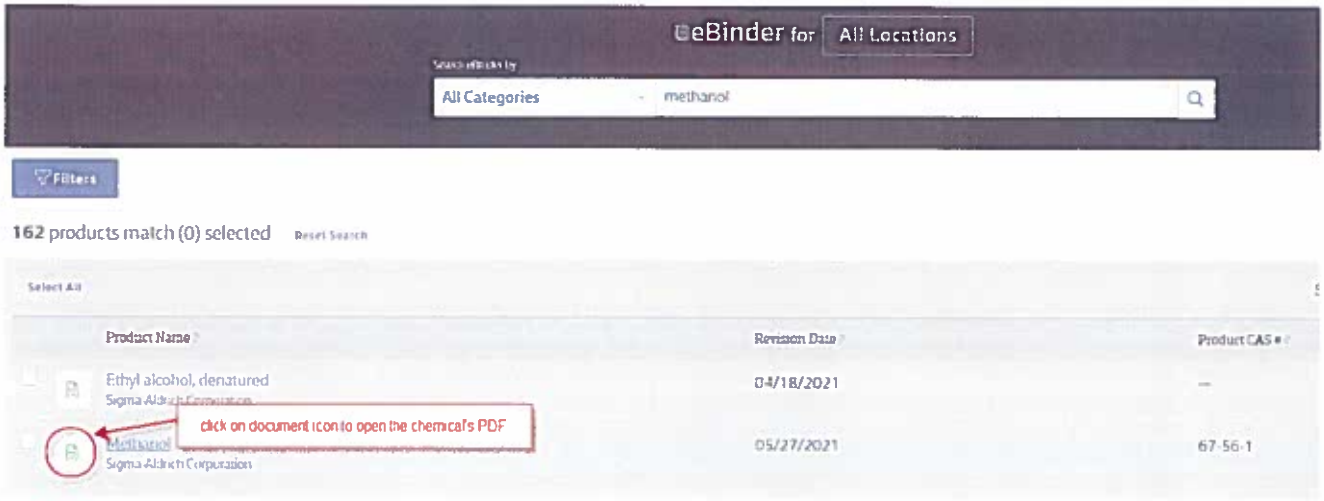
1. From the Beaumont Intranet home page, click on the Documents menu option drop down tab.

2. Select the Safety Data Sheet link. The MSDSonline application will open.

3. Type the name of the desired chemical in the search field. For example, type "methanol" in the search field and press the enter key.



4. MSDSonline will display the search results for methanol. Scroll through the list to find the product name and manufacturer for the desired chemical. Then click on the document icon (PDF) to the left of the chemical name.



7. The chemical's SDS will display. Scroll through the document to read the 16 section SDS document.

Sigma-Aldrich.

www.sigmaaldrich.com

SAFETY DATA SHEET

Version 6.9
Revision Date 05/27/2021
Print Date 06/19/2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Methanol

Product Number : 322415
Brand : Sigma-Aldrich
Index-No. : 603-001-00-X
CAS-No. : 67-56-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Amphomag® Spill Agent Instructions

Supplies needed to clean up a spill:

1. Mask
2. Goggles
3. Gloves
4. Chemical Resistant Apron or disposable lab coat
5. Broom & Plastic dustpan
6. Amphomag®

Clean Up directions:

1. **Put on appropriate Personal Protective Equipment (consult the chemical's Safety Data Sheet).**
2. **Pour Amphomag® slowly and directly onto the spill to contain and neutralize.**
   - Start at the out edge of the spill and distribute Amphomag in a decreasing spiral toward the center of the spill.

3. **The Amphomag® will initially turn reddish/pink to indicate that it is an acid or blue to indicate that it is alkaline. The Amphomag will turn to a yellow/green color when the spill is fully neutralized.**

   - **ACIDS**
     All acids will generate heat when neutralized with Amphomag®. In order to reduce the potential for splattering, apply a large excess of Amphomag® and completely cover spill with a thick layer of Amphomag®. When Amphmag® is applied to the acid spill, the pH indicator should turn red. This indicates that the spill is still acidic and more Amphomag® needs to be applied until a yellow/green color indicates neutralization is complete.

   - **ALKALIS**
     Neutralization of alkalis with Amphomag® will generate little heat. It is unlikely any splattering will occur. When Amphomag® is applied to the alkali the pH indicator should turn blue. This indicates that the spill is still alkaline and more Amphomag® should be applied until a yellow/green color indicates that neutralization is complete.

   - **SOLVENTS & OTHER LIQUIDS**
     Amphomag® acts as a sorbent in the case of these liquids and will not render the spill non-hazardous. No adverse reactions with organic solvents are known. If the organic solvent contains appreciable amounts of water, then some heat can be generated. Apply Amphomag® until the spill is dry. Since organic solvents are generally not acidic nor alkaline, the pH indicator is non-functional under these circumstances.

4. **The contained and neutralized Acid and Alkalis spills are now ready to be disposed of as a non-hazardous material. Use a broom and plastic dust pan to sweep up the Amphomag®.**

5. **Solvents and other liquids should be disposed of in accordance with the associated SDS.**

Note: The Amphomag® spill agent should be discarded and replaced if the product has clumps or is discolored.

Created August 26, 2021, document attached in the Laboratory Spill Response procedure

AMPHOMAG®

SIMPLE SPILL CLEANUP GUIDE

Keep your lab workers and lab environment safe with a quicker spill response.

Alert

- Communicate the presence of a spill to people in the immediate area
- Call in a team to avoid exposure or inhalation, depending on your level of training

Prepare

- Wear appropriate personal protective equipment such as mask, goggles, gloves, and acid-resistant apron
- Gather supplies you will need, including an absorbent barrier (rags, towels, socks), broom, plastic dustpan and Amphomag®

Confine

- Set up an absorbent barrier around the minor spill to prevent the chemical from spreading. Absorbent materials such as rags, towels, or even socks can be used
- Use Amphomag® as a diking material for containment, if needed

Neutralize and absorb

- Pour Amphomag® slowly and directly onto the spill to contain and neutralize
- Amphomag® will initially turn red to indicate an acid or blue to indicate the spill is a base. Note: If the spill is not an acid nor a base, Amphomag® will not change color, but will completely absorb the spill and reduce harmful vapors
- Continue to add Amphomag® until the spilled material turns a yellow/green color to indicate it is fully neutralized. Note: Reactions with acids and some aqueous solutions will generate some heat

Dispose

- Sweep up neutralized material with a broom and plastic dust pan

Sanitize

- Ensure all traces of the chemical spill are removed from the affected area

Report

- Communicate spill cleanup to people in the immediate area
- Follow established lab safety

Chemical Spill Quick Guide for Laboratory Staff

SPILLED: **Secure** the area, **Protect** yourself (Personal Protective Equipment – PPE), **Inspect** the spill, **Locate** spill kit, **Lay** down barrier and absorbents, **Extract** the spill clean-up waste, **Dispose** of waste properly.

Consult the chemical's Safety Data Sheet (SDS) for guidance on hazard warnings, spill clean-up/disposal, PPE, and safety precautions.

- **INJURIES:**
  - If employee is injured from the spill, use eye wash, shower, or wash hands as appropriate. Request help from Manager/Supervisor/coworker(s) and seek medical treatment, as needed.
- **EMERGENCY SPILLS:**
  - Call the security department located at your campus and activate the emergency **"Hazardous Materials Incident".**

Non-Emergency Spills (simple or minor spills)		**Emergency Spills** (major spills)
Spill can be cleaned-up by one spill kit, spill is less than one liter, and employees addressing the spill have necessary training, equipment, PPE, and supplies.		Spill is too large for one spill kit to absorb, unknown chemicals, toxic chemicals, immediate fire hazard, Mercury, Gasoline, Radioactive material, spill is spreading into public passageway or the heating/cooling system or into the drainage system.
A. Wear PPE: goggles, mask, face shield, chemical gloves, fluid resistant lab coat, as indicated in the SDS		Do Not attempt to clean-up the spill. Evacuate the area.
B. Treat Spill: 1. Follow the spill agent's manufacture direction 2. Encircle (dike) spill with the **spill agent***, then cover spill. 3. Allow the spill-agent mixture to neutralize. ❖ Keep Room evacuated during this time. ❖ Mixture may get hot. Do not touch or breathe fumes.		Call the campus Security Department to initiate a "Hazardous Materials Incident". Security will contact the Environment and Life Safety director and the hazardous waste vendor. Alert the Lab Manager/Supervisor/Lead. All the above personnel will determine the correct course of action for the spill.
C. Clean-Up 1. Scrape mixture into dust pan. 2. Place mixture, scraper, pan and gloves into plastic bag and dispose of as directed by the chemical's SDS. 3. Contact Environmental Services to mop area afterwards. 4. Lab Manager/Supervisor to document spill event in RL Solutions Safety reporting system.		Security and the laboratory should follow the Environment of Care (EOC)-Safety policy: Hazardous Material Spill Response Plan.

***Spill agent: Amphomag or other agents such as Spill X or SASCO (Acid spill use Acid Handler, Caustic/Base use Base control, Flammable Solvent use Solvent handler, Aldehyde use Poly-Form F, Chloride use Chlorine control).**

Created August 26, 2021, document attached in the Laboratory Spill Response procedure

SASCO Spill Control Product Applications and Directions

Chlorine Control Powder™
Product Applications and Directions

Chlorine Control Powder™ is a specially formulated powder designed for the destruction and control of various types of liquid chlorine spills and leaks. Chlorine Control Powder™ is manufactured in a dry form for easy application without mixing or dilution. Once applied, Chlorine Control Powder™ will:

- Neutralize the pH
- Convert all the chlorine to a nonhazardous material
- Eliminate harmful chlorine vapors
- Convert spill to a powder for easy disposal

Applications:

Chlorine Control Powder is effective against:

- Industrial strength Sodium Hypochlorite
- Household strength Sodium Hypochlorite (Clorox)**
- Most forms of liquid chlorine solutions
- Calcium Hypochlorite Solutions

Suggested Uses:

- Fire Departments, Haz-Mat Teams, Water Plants, Industrial Plants, Commercial Swimming Pools, Hospitals, Laboratories

DIRECTIONS:

1. Consult M.S.D.S. of spilled material to become familiar with its chemical properties and safety and health requirements.
2. Select and wear proper personal protective equipment, including suitable foot and respiratory protection for chlorine spills. (rubber boots, gloves, goggles, gas mask, SCBA, ets.)
3. Evacuate area as necessary to ensure the safety of all personnel.
4. Eliminate all sources of ignition and ensure that there is adequate ventilation available before applying product.
5. Apply Chlorine Control Powder™ to spill from the upwind side around its perimeter to dike the liquid, working from the outside toward the center, taking care to avoid vapors and splashing.
6. Carefully mix with a non-reactive paddle or shovel until all liquid is solidified.
7. Determine level of neutralization by using a chlorine test kit or strips.
8. Check pH and chlorine concentration.
9. Follow final clean up procedures established by your facility or company.
10. Dispose of neutralized waste in accordance with Federal, state and local environmental regulations.
11. Rinse and dispose of empty container after use.

** Clorox is a Registered Trademark of the Clorox Corporation.

Acid Handler™ and Base Control™
Product Applications and Directions

"The first line of control for most accidental releases of corrosive materials." These unique flowable powders were developed to facilitate the rapid and immediate control of spilled corrosive materials by:

- Solidifying and neutralizing on contact
- Immediately stopping the spread of hazardous chemicals
- Reducing hazardous fumes and vapors
- Reducing the corrosiveness of spilled materials, which reduces chemical attack on floors and other surfaces, as well as on the environment.
- Producing a controlled chemical reaction, rather than the usual violent reaction associated with the neutralization of strong corrosives.
- Eliminating the disposal problems typically associated with generic sorbents.
- Producing a dry powder which can be cleaned up and disposed of as a nonhazardous waste.

DIRECTIONS:

1. Consult M.S.D.S. of spilled material to become familiar with its chemical properties and safety and health requirements.
2. Select and wear proper personal protective equipment for the spilled material.
3. Evacuate area as necessary to ensure the safety of all personnel.
4. Eliminate all sources of ignition and ensure that there is adequate ventilation before applying product.
5. Apply SASCO Acid Handler™ or Base Control™ to the spill area, working from the upwind side and start from the outside of spill and working toward the center. If the spilled liquid is running, then apply product downstream of the spill to form a dam.
6. Carefully mix with a non-reactive paddle or shovel until all liquid is solidified.
7. Determine level of neutralization by using a pH test kit.
8. Let solidified / neutralized material cool prior to clean up.
9. Follow final clean up procedures established by your facility or company.
10. Dispose of neutralized waste in accordance with Federal, state and local environmental regulations.

Solvent Handler™
Product Applications and Directions:

Solvent Handler™ is a free flowing oxygen scavenging granule developed to control hydrocarbon spills. When this virtually dust-free granule is applied, the spilled material is solidified, vapors are eliminated, and flammability risk is reduced. The resulting dry solid granules can easily be swept up, leaving little evidence of the spilled liquid.

Solvent Handler™ is very effective in controlling: • Flammable liquids • Hydraulic oils • Brake oils

• Chlorinated solvents • Motor oils • Residual flammable liquids or sludge left in containers or storage tanks

DIRECTIONS:

1. Consult M.S.D.S. for the spilled material to become familiar with its chemical properties and safety and health requirements.
2. Select and wear proper personal protective equipment for the spilled chemical.
3. Evacuate area as necessary to ensure safety of personnel.
4. Eliminate all sources of ignition and ensure that there is adequate ventilation available before applying product.
5. Apply SASCO Solvent Handler™ to spill from the upwind side around its perimeter to dike the liquid, working from the outside of the spill toward the center. Completely blanket the spill, eliminating all wet areas.
6. Agitate product on the spill area with non-sparking paddle or scrapper, adding additional Solvent Handler™ as needed to eliminate all wet areas.
7. Check vapor elimination, using a vapor detection device.
8. Add additional Solvent Handler™ product until all vapor is eliminated.
9. Dispose of neutralized waste in accordance with Federal, State, and Local environmental regulations.

NOTE; SASCO Solvent Handler™ Does Not reduce toxicity. When this virtually dust-free granule is applied, the spilled material is solidified, vapors are eliminated, and flammability risk is reduced. If spilled material is toxic, the treated waste remains toxic and should be treated accordingly.

PolyForm-F™

ELIMINATES HARMFUL VAPORS IN MINUTES

Protection Against Formaldehyde and Glutaraldehyde Vapor Has never been easier!

Polyform-F™ is the spill control product of choice for the safe and rapid control of harmful vapors from Formaldehyde, Glutaraldehyde, 10% Neutral Buffered Formalin, and other aldehydes, including Cidex-OPA and Formaldehyde based embalming solutions.

Once **Polyform-F™** free flowing granules are applied the harmful vapors are eliminated in 2 to 3 minutes. Formaldehyde and other aldehyde solution are neutralized and polymerized. This safe reaction leaves a non-hazardous biodegradable polymer, safe and simple for personnel to clean up and dispose.

Perfect For Use In:

- Hospital & Medical Labs
- Medical Schools & Universities
- Labor & Delivery Suites
- Specimen Transportation
- Mortuary & Embalming Suites
- Morgues & Autopsy Suites
- Hospital G.I. Labs
- Veterinary School Laboratories
- Specimen Storage Areas
- Where ever aldehydes are used.
- Histology & Pathology Labs
- Anatomy and Biology Labs
- Operating Rooms
- Shipping & Receiving Areas

Polyform-F™ may be used in conjunction with Formalex®, a liquid control agent in a spray bottle, for very small spills, vapor control for trash cans, and for hard to reach areas affected by the spill, such as cabinet faces and drawers.

"The First Choice For Personnel Safety"

Directions:

1. Consult M.S.D.S. for the spilled chemical solution, to become familiar with its chemical properties and health & safety requirements.
2. Select and wear proper personnel protective equipment as recommended or noted on the M.S.D.S. for the spilled chemical solution.
3. Evacuate area as necessary to ensure safety of personnel.
4. Eliminate all sources of ignition and insure there is adequate ventilation in the area of the spill.
5. Add Polyform-F™ around the perimeter of the spill to dike the liquid and prevent spreading. From the upwind side, cover the entire area from edge to edge at a **ratio of approximately one-to-one**, completely covering the spill and taking care to avoid vapors and splashing.
6. Once Polyform-F™ is applied, allow to stand Do Not Mix for 12 to 15 minutes.
7. Cleanup spill residue by using a plastic dust-pan and disposable towels, then place the collected spill residue in adequate waste bag.
8. After spill residue has been removed from spill area, wipe up the spill area with **cold tap water**, using towel, sponge or mop.
9. "Post-Cleanup" the spill area with mild detergent solution recommended by your facility for the final floor and/or counter cleanup.
10. In most cases, the Polyform-F™ treated spill residue may be disposed of as non-hazardous waste.
    - If spilled solutions contain heavy metals, then material must be handled as a potential hazardous waste.
    - If human or animal tissue has been in contact with the spilled formalin then the spill residue material may be handled as a potential bio-medical waste.
    - Always dispose of all spill residue waste in accordance with users' facility recommendations and follow all Federal, State and Local environmental regulations.
    - ➢ PolyForm-F™ is effective on: Formaldehyde, 10% Neutral Buffered Formalin, Formaldehyde-based Embalming solution, Glutaraldehyde solution, eg, Cidex, Cidex-OPA, Metracide, Wavacide, OmniCide

American Bio-Safety, Inc.

Bus; (800) 624-8021 4322 Anthony Court, # 5 Rocklin, CA. 95677 Fax; (916) 652-8020

WebSite; www.AmericanBioSafety.com Email; absafety@sbcglobal.net

Formalex® is a registered trademark of the S & S Company of Georgia, Inc.

SASCO Spill Control DO's & DON'T's

SASCO ACID HANDLER™

- **DO** use on the following acids;

Acetic Acid
Acetic Anhydride
Acetyl Chloride
Aluminum Chloride
Chlorosulfonic Acid
Citric Acid
Formic Acid
Glacial Acetic Acid
Hydrochloric Acid
Muriatic acid
Hydrofluosilic acid
Nitric acid
Perchloric acid
Phosphoric acid
Phosphoric anhydride
Sulfonic acid
Phophorous pentoxide
Sulfuric acid
Phophorous trichloride
Dodecylbensylsulfonic acid
54% hydrofluoric acid solution
Chromic Acid solutions-Chromium waste hazard

- **DO NOT** use on the following;

Chlorine
Oxidizers
Sodium Amide
Picric Acid
Hydrogen Peroxide
Iodic Acid
Sulfurous Fluoride Antimony Pentrafluoride ("Super-Acids")
Concentrated Hydrofluoric acid

SASCO BASE CONTROL™

- **DO** use on the following bases;

Triethylalamine
Monoethanolamine
Morpholine
Most Alkali Detergents
Anhydrous Ammonia
Sodium Metasilicate solution
Sodium Hydroxide = caustic soda
Potassium Hydroxide = caustic potash
Ammonium Hydroxide = aqua ammonia

- **DO NOT** use on the following;

Chlorine
Hydrogen Peroxide
Oxidizers
Sulfurous Fluoride
Sodium Hypochloride
Sodium Amide

SASCO SOLVENT HANDLER™

- **DO** use on the following;

-Alcohols
-Xylene
-Chloroform
-Acetone
-Methyl Ethyl Ketone
-Ethyl Acetate
-111 Trichlorethane
-Gasoline
-NN Dimethylformamide
-Diesel
-Most all Hydrocarbons
-Most all Halogens

DO NOT use in large volume in enclosed area.
Be Extremely Careful using SOLVENT HANDLER™ on solvents with low auto-ignition temperature like "Nitromethane"

SASCO POLYFORM-F™

- **DO** use on the following;

Formaldehyde
Formalin
10% formalin
Formaldehyde-based Embalming solution
Glutaraldehyde
Glutaraldehyde solution, eg, Cidex, Cidex-OPA, Metracide, Wavacide, and OmniCide
Bouins Fixative - add Polyform-F™ to destroy formaldehyde. Neutralize pH with bicarbonate or caustic soda. This will convert picric acid to sodium picrate, which can be disposed of safely.

B-5 Fixative - Contains heavy metals, which constitutes a hazardous waste.

The lists given herein are general and do not necessarily include all the materials Acid Handler™, Polyform-F™, Base Control™, and Solvent Handler™ can or cannot be used on. If you would like an exotic species tested, or have questions as to application of the products, call the S&S Company of Georgia, Inc. or American Bio-Safety at the respective numbers listed below. We will try applying our products to your substance and determine a suitable procedure for spill situations.

American Bio-Safety
Bus; (800) 624-8021 4322 Anthony Court, # 5 Rocklin, CA. 95677 Fax; (916) 652-8020
WebSite; www.AmericanBioSafety.com Email; URSAFE@AmericanBioSafety.com
S&S Company of Georgia, Inc. (912) 435-8394

SPILL KIT
TREATMENT GUIDE

ANSUL® Spill Control Products

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BE PREPARED ...

Please familiarize yourself with the contents and applications of this kit prior to use. This will help ensure safer, more effective response in the event of a chemical spill.

INSTRUCTIONS

Chemical spills present a variety of hazards in the workplace. For example, corrosives such as acids and caustics can cause severe burns on contact to skin and eyes, and the presence of fumes can be damaging to the respiratory system. Also, many organic solvents are flammable and release vapors which are irritating to the eyes and respiratory system. Taking personal protective measures is always the first step in responding to chemical spills.

1

SAFETY FIRST
– isolate spill area
– notify proper authorities
– wear adequate protection


000795
eye


000796
hand


000797
respiratory

Personal protective clothing suitable for the hazard should be worn to prevent direct contact with the spilled substance and its vapors. The eye and hand protection provided with this kit along with your lab clothing offers minimum protection needed for spill clean-up.

2

IDENTIFY SPILL
– acid?
– caustic?
– solvent?
– formaldehyde?
– other?

Knowledge of a particular chemical's hazardous characteristics can be obtained from its labeling, Material Safety Data Sheet (MSDS), the manufacturer, and supervisory personnel. Review the substance's MSDS to see if additional bodily or respiratory protective measures may be required and what first aid steps should be taken in case of spill contact.

3

SELECT AGENT

for acid spills... Spill-X-A® ACID NEUTRALIZER

for caustic spills... Spill-X-C® CAUSTIC NEUTRALIZER

for solvent spills... Spill-X-S. SOLVENT ADSORBENT

for formaldehyde spills... Spill-X-FP® FORMALDEHYDE POLYMERIZER

Your SPILL TREATMENT KIT contains spill control agents specially formulated to treat particular classes and sizes of chemical spills. Kits are available packaged with either SPILL-X-A agent, SPILL-X-C agent, SPILL-X-S agent, SPILL-X-FP agent or in certain combinations (see back page of Guide for combinations available). Using this Guide, evaluate agent suitability for spill size and type. **Do not use any agent on substances other than those listed for that agent in the Chemical Spill Treatment Ratio Table** (next page). Upon deciding to proceed with spill clean-up, be sure to wear all required personal protective equipment.

Spill Shakers

4

TREAT SPILL

encircle, cover with agent

mix agent into spill

⚠ CAUTION

Remove sources of ignition if spilled material is flammable.

Discard safety seal from inside agent bottle cap. Begin spill treatment by pouring agent around spill to encircle and dike its perimeter. Taking care to avoid splashing, continue to apply agent evenly onto spill. Using scraper provided, carefully mix agent into spill for the most complete reaction. If spill was corrosive, any neutralization reaction will subside after a few minutes leaving a paste-like residue. If spill was a formaldehyde solution, complete solidification may not occur. For dilute solutions, see Formaldehyde Treatment Ratio Table for solidification information. If spill was a solvent, agent adsorption is indicated by the disappearance of free liquid.

5
RESTORE AREA

000800

000801

disposition and clean-up

label, proper disposal

SPILL-X-A and SPILL-X-C agents work as acid/base neutralizers respectively. Test representative samples of spill residue for final pH (see Page 5). Add more agent if necessary. SPILL-X-S agent adheres (adsorbs) solvent onto a carbonaceous matrix. Final spill residue should be dry and powdery. SPILL-X-FP agent polymerizes formaldehyde, but **may not** solidify waste. Use SPILL-X-S agent to solidify any remaining liquid. Record spill type, treatment (e.g., "neutralized acid/base, pH =____", "adsorbed solvent: name") and disposition (i.e., recommended disposal method) onto label of bag(s) provided. After treatment reaction cools, use scraper and pan to pick up residue and place into labeled bag. Rinse and decontaminate utensils, area. Residue disposal must follow your company guidelines and meet local, state and federal regulations.

HOW TO USE THIS TABLE ...

The type and size of the chemical spill determines the choice and amount of SPILL-X agent to use. The following is a list of chemicals which have been tested with the appropriate SPILL-X agent. Additional chemicals are being tested. If you have a chemical which does not appear on the list, call ANSUL at 1-800-346-3626 to see if testing has been performed.

CHEMICAL SPILL TREATMENT RATIOS

After identifying the chemical spilled, find its name (and concentration if applicable) on a list below. **If it is not on a list, do not use this kit on the spill.** Each list gives the amount of spilled chemical that can be treated with the contents of one SPILL-X agent container. Use multiple containers for larger spills.

ACID SPILLS

If an acid spill of the type below, one 2.5 lb (1.13 kg) SPILL-X-A agent container will treat the following amount of spilled acid:

TABLE 1 – SPILL-X-A AGENT APPLICATION

Type of Acid	% Concentration		Neutralization and Solidification SC-30-A Applicator* gal	(L)	Amount Neutralized/ Solidified Pints	(L)	Treated Material Form After 15-30 Minutes of Cooling
Acetic	99%	(17.4 Molarity)	2.50	(9.5)	2.40	(1.14)	Solid
Adipic	10%	(0.68 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Acrylic	99%	(14.4 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Butyric	99%	(10.8 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Chlorosulfonic	99%	(14.9 Molarity)	2.50	(9.5)	1.57	(0.74)	Solid
Cyanoacetic	50%	(5.9 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Formic	90%	(23.3 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Hydriodic	50%	(6.0 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Hydrochloric (Muriatic)	37%	(12.0 Molarity)	2.50	(9.5)	2.12	(1.0)	Paste
Hydrofluoric	49%	(28.4 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Methacrylic	98%	(11.6 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Nitric	70%	(15.9 Molarity)	2.50	(9.5)	4.42	(2.08)	Solid
Propionic	99%	(13.3 Molarity)	2.50	(9.5)	1.96	(0.93)	Solid
Perchloric	70%	(11.7 Molarity)	2.50	(9.5)	2.35	(1.11)	Solid
Phosphoric	85%	(12.0 Molarity)	2.50	(9.5)	2.42	(1.14)	Solid
Sulfuric	93%	(17.4 Molarity)	2.50	(9.5)	2.28	(1.08)	Solid

*The SC-30-A hand portable applicator contains 30 lb (13.6 kg) of SPILL-X-A agent. The 5 gal pail holds 50 lb (22.7 k) of SPILL-X-A agent. The fibredrum holds 200 lb (90.7 kg) of SPILL-X-A agent.

CAUSTIC SPILLS

If a caustic spill of the type below, one 2.0 lb (0.90 kg) SPILL-X-C agent container will treat the following amount of spilled caustic:

Types of Caustic	% Concentration	Amount Neutralized/Solidified Pints	(liters)
Ammonium Hydroxide	29%	2.80	(1.32)
Aniline		0.61	(0.29)
Diethanolamine		0.71	(0.34)
Diethylamine		0.75	(0.35)
Diethylenetriamine		0.75	(0.35)
Dimethylformamide		0.53	(0.25)
Ethylenediamine		0.70	(0.33)
Hydrazine	64%	1.15	(0.54)
Morpholine		0.75	(0.35)
Potassium Hydroxide	45%	1.84	(0.87)
Pyridine		0.72	(0.34)
Sodium Hydroxide	50%	1.15	(0.54)

FORMALDEHYDE SPILLS

If a formaldehyde spill of the concentration below, one 1.85 lb (0.84 kg) SPILL-X-FP agent container will treat the following amount of spilled formaldehyde:

Formaldehyde (AKA Formalin) Concentration (WT%)	Amount Polymerized Pints	(liters)
37	1.54	0.73
30	1.92	0.91
20	2.96	1.40
15	3.99	1.89
10	6.11	2.89
4 (10% V/V)	15.49	7.33
Glutaralhyde (25%)	2.52	1.19

Actual amount polymerized and solidified may vary according to application. For solution strengths of less than 15 wt. %, it may be necessary to solidify any remaining liquid with SPILL-X-S agent.

SOLVENT SPILLS

If a solvent spill of the type below, one 1.0 lb (0.45 kg) SPILL-X-S agent container will treat the following amount of spilled solvent:

Solvent	Amount Adsorbed Pints	(liters)
Flammable:		
Acetone	1.60	0.76
Acetonitrile*	—	—
Acrylonitrile	1.20	0.57
Avgas 100	1.20	0.57
Benzene	1.06	0.50
Butylacetate	1.04	0.49
Butylether	0.96	0.45
Butyraldehyde	1.04	0.49
Carbon Disulfide	0.88	0.42
Cumene	1.04	0.49
Cyclohexane	0.96	0.45
Decane	1.04	0.49
1,2-Dichloroethane	0.72	0.34
Diethylamine	1.20	0.57
1-Diethylamino-2-Propanol	1.20	0.57
N,N-Diethyethanolamine	0.80	0.39
Dimethylformamide	0.64	0.30
Ethanol	0.96	0.45
Ethylenediamine	0.96	0.45
Ethylene-Glycoldimethylether	1.04	0.49
Formamide*	—	—
Fuel Oil #2	0.96	0.45
Gasoline (50-100 Octane)	0.96	0.45
Gasoline (100-130 Octane)	1.36	0.64
Gasoline, Unleaded	1.36	0.64
Heptane	1.28	0.61
Hexane	0.96	0.45
Isopropylalcohol	1.44	0.68
Isopropylamine	1.20	0.57
Jet A-1 Avtur	0.88	0.42
Methanol	0.96	0.45
Methyl Ethyl Ketone	1.60	0.76
Methylisobutylketone	1.52	0.72
Morpholine	0.96	0.45
Nonane	1.04	0.49
Octane	0.80	0.39
Pentane	0.88	0.42
Petroleum Ether	1.60	0.76
1 – Propanol*	—	—
2 – Propanol*	—	—
Pyridine	1.60	0.76
Styrene	1.04	0.49
Tetrahydroforan*	—	—
Toluene	0.96	0.45
Triethylamine	0.96	0.45
Vinyl Acetate	1.44	0.68
Xylene, O-	1.20	0.57
Xylene, P-	0.96	0.45

*Contact ANSUL Technical Services.

SOLVENT SPILLS (Continued)

Solvent	Amount Adsorbed Pints	(liters)
Nonflammable:		
1-Amino-2-Propanol	0.96	0.45
Aniline	0.88	0.42
2-Butoxyethanol	0.80	0.39
Carbon Tetrachloride	0.88	0.42
Chloroform	1.04	0.49
Diethanolamine	1.20	0.57
Diethyleneglycol Dimethylether	0.88	0.42
Diethylene Triamine	1.20	0.57
Ethanolamine	0.88	0.42
5-Ethyl-2-Methylpyridine	0.88	0.42
Toluene Diisocyanate	0.88	0.42
1,1,1-Trichloroethane	0.64	0.30
1,1,2-Trichloroethane	1.92	0.91
Triethylene Tetramine	1.20	0.57

DISPOSITION OF TREATED SPILL RESIDUE ...

A spilled chemical may be 'hazardous' because it contains an RCRA listed waste or because it possesses one or more 'hazardous characteristics' as defined by the U.S. Environmental Protection Agency. SPILL-X-A and SPILL-X-C agents are formulated to treat only the hazardous characteristic of corrosivity. SPILL-X-S agent, because it **ad**sorbs solvents and their vapors, can help reduce vapor evolution and therefore flammability. SPILL-X-FP agent chemically reacts with formaldehyde to yield the polymer polynoxylin. SPILL-X-FP agent reduces the formaldehyde vapors because the chemical bonds formed do not allow the release of reacted formaldehyde. Chemical spills treated with the appropriate SPILL-X agent may still possess additional properties which are 'hazardous' as characterized by the EPA. For example, chromic acid spills can cause chemical burns on contact to skin and eyes because of their corrosive characteristic. Using SPILL-X-A agent, it is possible to eliminate this corrosivity characteristic. However, since in this case the spill residue contains chromate salts (an RCRA listed waste) the residue must still be disposed of as a hazardous waste. Final disposition of all spill waste residue must be in consideration of the presence of any remaining hazardous characteristic.

SPILL-X-A and SPILL-X-C agents are acid/base neutralizers respectively; formulated to address the hazardous characteristic of 'corrosivity.' Neutralization reaction efficiency can be measured using conventional pH measuring procedures.

MEASURING pH

Personal protective equipment must be worn during this procedure.

1. Place about 10 cc of a representative sample of spill residue in a 150 ml beaker.
2. Slowly add distilled water until mixture volume reaches 100 ml. Stir contents for about 3 minutes (**Note:** severe foaming and high heat generation is a sign of incomplete spill neutralization).
3. Using a pH meter or pH test strips (provided), test solution pH. The U.S. EPA criteria for solid, noncorrosive acid or caustic waste requires a pH from 2.0 to 12.5. If the pH is unacceptable, mix more of the appropriate SPILL-X agent into spill and retest for pH. Repeat this procedure as necessary until spill residue pH is acceptable.
4. Record final pH onto Chemical Spill Waste disposal bag (provided) along with other pertinent information. Indicate on the bag what the final disposition of the waste should be. Dispose of following company, local, state and federal guidelines.

ADSORPTION

SPILL-X-S agent is a proprietary carbonaceous substrate designed to adsorb spills of many common solvents. Adsorption does not chemically alter the substance being adsorbed. However, some physical properties (e.g., flashpoint) can be modified by the adsorptive process. Proper adsorption condenses the solvent and its vapors onto the SPILL-X-S agent substrate allowing spill residue to be simply swept-up, minimizing the amount of spill waste residue for transport to final disposal or incineration site. Furthermore, adsorption can help limit solvent vaporization, reducing workplace contamination and flammability hazards.

POLYMERIZATION REACTIONS

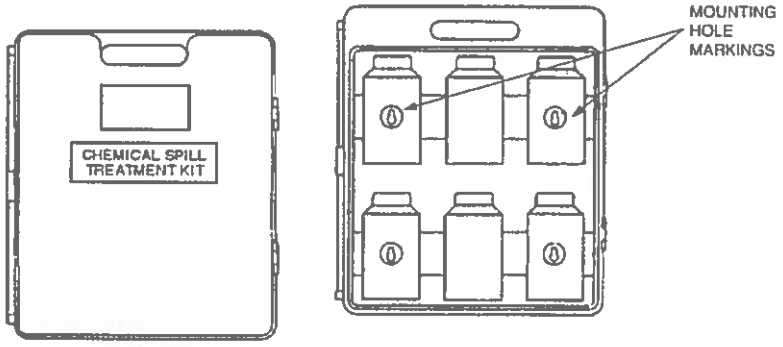
SPILL-X-FP agent is a urea-based agent designed to chemically react with formaldehyde solutions. The end product of a treated formaldehyde spill is the polymer polynoxylin. The reaction rate is affected by the spill temperature and the formaldehyde concentration.

PLACING YOUR SPILL TREATMENT KIT...

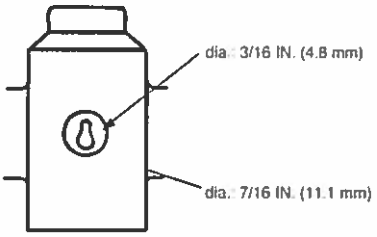
SPILL TREATMENT KITS are designed to allow faster, safer, better spill response. Portable and rugged, kits should be placed on all spill response carts and vehicles in areas where hazardous chemicals are handled. Kits can also be wall mounted using the wall mount screws and anchors provided. This assures high visibility and readiness in laboratories, storerooms, and hallways. Faster, safer, better spill response using SPILL TREATMENT KITS can lessen employee chemical exposure, facility downtime, and the amount of hazardous spill waste residue for disposal.

WALL MOUNT INSTRUCTIONS

Examine the SPILL TREATMENT KIT to become familiar with its contents. Find and set aside the bag containing the two mounting screws and anchors. Remove the six containers of SPILL-X agent. Note the mounting hole markings at the back of the four outer bottle slots. **Use only these sites for wall mounting purposes.**



The mounting hole markings can be drilled out to allow either permanent wall mounting or to create 'keyhole slots' for Kit removability. Under normal conditions only the top two markings need be used. Drill a 3/16 in. (4.8 mm) hole in the top of each marking for permanent wall mounting. To create 'keyhole slots,' drill additional 7/16 in. (11.1 mm) holes as indicated below and cut out the material between the small and large holes.



Determine the best site and height for Kit mounting. Visibility, accessibility, proximity to exits, and wall construction must all be considered. Hold the drilled-out Kit level at the desired mounting site and mark the wall for mounting screw placement. Use the plastic anchors for mounting on plasterboard. Anchors require a 3/8 in. (9.5 mm) hole for insertion. Insert the screws into the 3/16 in. (4.8 mm) mounting holes drilled in the Kit, then drive the screws through the holes and into the wall until tight. If 'keyhole slots' are used, back screws off slightly to allow case removability.

MSDS INFORMATION

MSDS AVAILABLE AT: www.ansul.com

CAUTION: STAY PREPARED...

Don't get caught with an empty Kit. Reorder SPILL-X agents and accessories as soon as you've finished spill response.

REORDER INFORMATION

Listed below are descriptions and part numbers for SPILL RESPONSE KITS and accessories. Include this information on all orders. Thank you!

Description	Contents	Part No.
Chemical Spill Treatment Kit	2 Containers each: SPILL-X-A Agent, SPILL-X-C Agent, SPILL-X-S Agent, Plus Accessories	78774
Acid Spill Treatment Kit	6 Containers each: SPILL-X-A Agent, Plus Accessories	78776
Caustic Spill Treatment Kit	6 Containers each: SPILL-X-C Agent, Plus Accessories	78777
Solvent Spill Treatment Kit	6 Containers each: SPILL-X-S Agent, Plus Accessories	78778
Formaldehyde/Solvent Spill Treatment Kit	3 Containers each: SPILL-X-FP Agent, SPILL-X-S Agent, Plus Accessories	73834
Chemical Spill Treatment Agent	2 Containers each: SPILL-X-A Agent, SPILL-X-C Agent, SPILL-X-S Agent	77358
Acid Spill Treatment Agent	6 Containers each SPILL-X-A Agent	77255
Caustic Spill Treatment Agent	6 Containers each SPILL-X-C Agent	77261
Solvent Spill Treatment Agent	6 Containers each SPILL-X-S Agent	77265
Formaldehyde Spill Treatment Agent	6 Containers each: SPILL-X-FP Agent	78435
Spill Treatment Kit Accessories	1 Pair Safety Gloves, 1 Pair Safety Goggles, 2 Clean-Up Pans, 1 Mixer-Scraper, 6 Chemical Spill Waste Bags, 1 Spill Kit Treatment Guide	78919