



ENVIRO TECH CHEMICAL SERVICES STANDARD OPERATING PROCEDURE

I. TITLE: PERACETIC ACID ACCIDENTAL RELEASE CONTAINMENT

II. PURPOSE:

1. The purpose of this procedure is to outline the safe work procedures for mitigating releases of formulations containing peracetic acid.

III. STAKEHOLDERS:

1. This procedure applies to all trained and qualified Enviro Tech employees, contractors, and representatives.

IV. RESPONSIBILITIES:

1. HAZWOPER Personnel

- 1.1. Responsible for clean-up, treatment, storage and disposal of spilled peracetic acid.
- 1.2. Assist department personnel in developing spill reports.

2. Managers/Supervisors

- 2.1. Ensure that only trained and authorized personnel clean up spills involving peracetic acid.
- 2.2. Ensure that employees are equipped and use appropriate PPE.
- 2.3. Spill reports are developed and submitted within 24 hours of a spill.

3. Other Employees

- 3.1. Report all spills involving peracetic acid immediately.
- 3.2. Evacuate areas where spills occur and notify affected individuals.
- 3.3. Do **NOT** attempt to clean spills involving peracetic acid without being trained, authorized, and equipped with the proper PPE.

V. DEFINITIONS:

1. **Peracetic Acid:** Colorless liquid with a strong, pungent acrid odor, similar to acetic acid. Used as a bactericide and fungicide, especially in food processing. Contact may severely irritate the skin, eyes, and mucous membranes. Decomposes violently on contact with many metals. Contact with combustible materials may result in spontaneous ignition. Under prolonged exposure to fire or heat containers may rupture violently and rocket.
2. **HazMat Spill Kit:** UN rated container that is equipped with polypropylene socks and pillows, polyethylene mats, polyethylene disposal bags, and tamperproof seals. HazMat absorbents are pink in color and are compatible with acids, bases, and unknowns. Spill kits are used to contain, absorb, and collect spilled material.
3. **Spill Magnet:** A magnetic cover placed on storm water drains to prevent spilled material from entering.
4. **Limited Defensive Actions:** Actions that personnel can take, in the event of a spill, to protect the health and safety of themselves and others.

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VI. ASSOCIATED MATERIALS:

1. New Pig® HazMat Spill Kit
2. Spill Magnet
3. Powder soda ash
4. 3-quart large scoop (14 1/2" H x 6" W x 6" D)

VII. EQUIPMENT:

1. HAZWOPER Trailer

VIII. PERSONAL PROTECTIVE EQUIPMENT:

1. NIOSH Full-Face Air-Purifying Respirator with acid gas / organic vapor cartridges w/ N95 filters.
2. Class A Tychem Suit
3. Class B Tychem Suit
4. Chemical Protective Gloves- (Neoprene)
5. Boots (Neoprene)- ASTM F2413-18 I/75 C/75
6. Self-Contained Breathing Apparatus (SCBA)

IX. PROCEDURE:**1. Spill Communication**

- 1.1. Once identified, a spill must be reported to management and affected personnel must be notified.
- 1.2. HAZWOPER Personnel shall be notified of the spill and will respond to investigate.
HAZWOPER personnel will determine the appropriate emergency response procedures according to the hazards presented.

2. Limited Defensive Actions by Operators and Other Personnel

- 2.1. As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters (150 feet).
- 2.2. Close valves/shut off pumps as required to limit spilled quantity if safe to do so.
- 2.3. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- 2.4. Minimize ignition sources in area – shut down electrical devices if possible
- 2.5. Ventilate enclosed areas
- 2.6. Set up barriers to exclude all entry and keep out vehicle traffic
- 2.7. Keep unauthorized personnel away.
- 2.8. Stay upwind, uphill and/or upstream.

3. Spill in Contained Area (Bulk Storage Tank)**3.1. Spill Control Actions**

- 3.1.1. Don the appropriate PPE for the level of hazard. In the event of a container failure, HAZWOPER Personnel will put on a Class A Tychem suit and a SCBA.
- 3.1.2. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

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- 3.1.3. All equipment used when handling the product must be grounded. The HAZWOPER trailer contains tools and equipment for handling spilled material.
 - 3.1.4. Stop leak if you can do it without risk.
 - 3.1.5. **DO NOT GET WATER INSIDE CONTAINERS.**
 - 3.1.6. Prevent entry into waterways, sewers, basements or confined areas. Use a spill magnet to block the storm water drain and use an absorbent sock to dike the drain. This will ensure no spilled material enter the storm water system.
 - 3.1.7. Small Spill
 - 3.1.7.1. The spilled material can be covered with **New Pig®** HazMat absorbent pads or other compatible non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
 - 3.1.8. Use clean, non-sparking tools and equipment to collect material and place it into loosely covered plastic containers for later disposal.
 - 3.1.9. Once the spilled material has been recovered, flush contacted surfaces with water and neutralize with soda ash.
- 4. Spill in Uncontained Area (Process Area)**
- 4.1. **Spill Control Actions**
 - 4.1.1. Don the appropriate PPE for the level of hazard.
 - 4.1.2. **ELIMINATE** all ignition sources (no smoking, flares, sparks or flames in immediate area).
 - 4.1.3. Contain spill with diking and other compatible materials. **New Pig®** HazMat absorbent socks may be used to contain spills involving peracetic acid.
 - 4.1.4. All equipment used when handling the product must be grounded. The HAZWOPER trailer contains tools and equipment for handling spilled material.
 - 4.1.5. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
 - 4.1.6. Stop leak if you can do it without risk.
 - 4.1.7. A vapor-suppressing foam may be used to reduce vapors.
 - 4.1.8. **DO NOT GET WATER INSIDE CONTAINERS.**
 - 4.1.9. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
 - 4.1.10. Prevent entry into waterways, sewers, basements or confined areas. Use a spill magnet to block the storm water drain and use an absorbent sock to dike the drain. This will ensure no spilled material enter the storm water system.
 - 4.1.10.1. The spilled material can be covered with **New Pig®** HazMat absorbent pads or other compatible non-combustible material followed with plastic sheet to minimize spreading.
 - 4.1.11. Use clean, non-sparking tools and equipment to collect material and place it into loosely covered plastic containers for later disposal.

- 4.1.12. Once the spilled material has been recovered, flush contacted surfaces with water and neutralize with soda ash.
- 4.2. **Spills Under 5-gallons**
 - 4.2.1. If the spill in the process area is less than 5-gallons, then hose the spill into the underground sump with flooding quantities of water.
 - 4.2.2. The contents will be collected and further diluted and neutralized, then the neutralized solution to the wastewater holding sump.
5. **Neutralization Procedure**
 - 5.1. Estimate the amount of peracetic acid collected.
 - 5.1.1. For every 1 gallon of peracetic acid, two pounds of dry soda ash (approximately half of a 3-quart large scoop, 14 ½” H x 6” W x 6” D, scoop) will be needed to neutralize it.
 - 5.1.2. One full scoop of soda ash (approximately five pounds) will be sufficient enough in neutralizing just over two gallons of peracetic acid.
 - 5.2. Carefully and slowly sprinkle the soda ash onto the top of the diluted spilled material; make sure the entire area is covered with soda ash.
 - 5.2.1. The soda ash will neutralize the peracetic acid and give off carbon dioxide gas which will appear as bubbling or effervescence.
 - 5.2.2. **DO NOT** containerize the neutralized solution until all bubbling has subsided. The generation of carbon dioxide could over pressurize and rupture the container.
 - 5.2.3. Store containers away from operations and other materials.
6. **Spill Reporting**
 - 6.1. Once the spill has been mitigated, management will ensure that a spill report has been submitted in Intalex.
 - 6.2. HAZWOPER and witnesses will make themselves available to provide information about spill scenario and response.
 - 6.3. If spill results in a release of a reportable quantity, EH&S Management is responsible for contacting local and state emergency management committees.
7. **Disposal**
 - 7.1. Dispose of all collected material, rinse/flush water, and contaminated absorbent in accordance with local, state, and federal regulations.