**Phenol SOP**

**1. BACKGROUND**

Phenol is a common chemical used for activities such as tissue preservation and DNA/RNA extraction. Phenol can be a component in a commercial reagent (e.g. QIAzol, TRIzol) or prepared as part of a mixture in the laboratory (e.g. chloroform: phenol). It is both a corrosive and toxic. Phenol has an anesthetic effect and can cause severe burns that may not be immediately painful or visible. It can cause permanent eye injury and blindness. The NIOSH Recommended Exposure Level for Phenol is 5 ppm.

**2. SPECIFIC HAZARD CLASSIFICATIONS**

**(This section is not a substitution for the review of the Safety Data Sheet - SDS)**

Precautionary statement(s) Prevention

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| --- | --- |
| P-Code | Precautionary Statement |
| P201 | Obtain special instructions before use. |
| P260 | Do not breathe dust/fume. |
| P270 | Do not eat, drink, or smoke when using this product. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P281 | Use personal protective equipment as required. |
| P273  | Avoid release to the environment.  |

Precautionary statement(s) Response

|  |  |
| --- | --- |
| P-Code | Precautionary Statement |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P321 | Specific treatment (see advice on SDS). |
| P322 | Specific measures (see advice on SDS). |
| P363 | Wash contaminated clothing before reuse. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P304+P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |

**3. TRAINING**

Training required/provided:

- EHS 2555 Laboratory Safety training

- EHS 2716 Chemical Waste Disposal Training

- EHS 2394 Cleaning Up Small Lab Spills

- Lab Specific – including SDS and SOP review with proficiency on procedure (include where this will be documented in the lab – this can be a sign-off attached to the SOP)

**4. ORDERING of Phenol and First Aid Materials**

Company, Catalogue number.

**5. STORAGE and USE**

Location

of reagent in the lab.

of First Aid Kit

of Spill Kit

Must be used in a fume hood.

**6. Personal Protective Equipment (PPE)**

See EHS Guidance Document: “Phenol First Aid and PPE.”

**7. PREPARATION of Solutions and Working Protocols**

Research protocol specifics:

**8. TRANSPORT**

Describe how the samples will be transported to other buildings/rooms.

**9. WASTE HANDLING and DISPOSAL**

Phenol must be disposed of as hazardous waste – corrosive, toxic.

Describe lab-specific process for labeling, storage, and removal of hazardous waste.

**10. DECONTAMINATION**

For light contamination of small areas or items flush with plenty of water and wash items with soap or detergent and water.

Describe your clean up procedures to ensure there is no residue or transfer outside of the hood:

**10. EMERGENCY PROCEDURES**

i. **Spills**:

Secure and ventilate the area.

For small spills wear appropriate PPE and retrieve the spill kit from \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Absorb spill with a spill pad, absorbent material, or lab wipes. Bag spill cleanup materials in plastic bag and manage as hazardous waste.

For larger spills e.g. over 500mL or if uncomfortable cleaning up:

**Ithaca**: Use Emergency Phone or 255-1111 for EHS Spill Response. Include location of closest emergency equipment (safety showers, eyewashes, spill kit, First Aid guidance, etc.)

**Geneva** specific procedures: call 911

ii. **Personnel contamination or exposure:**

 See EHS Guidance Document: “Phenol First Aid and PPE.”

iii- **Complete**[**incident report**](file:///C%3A%5CUsers%5Cllc29%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CINetCache%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CINetCache%5CContent.Outlook%5CA9L0FF3R%5Cincident%20report) **for any spill, injury, illness, or exposure related to work at Cornell within 24 hours**: <https://ehs.cornell.edu/incident-reporting>.