Phenol Solution, 5%

Section 1: Product and Company Identification

Synonyms/General Names: Carbolic Acid.
Product Use: For educational use only
Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925,

24 Hour Emergency Information Telephone Numbers
CHEMTREC (USA): 800-424-9300 CANUTEC (Canada): 613-424-6666
Scholar Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Clear, colorless liquid, sweet aromatic odor.

DANGER! Strongly corrosive to body tissue and moderately toxic by ingestion, skin absorption, and inhalation. Target organs: Liver, kidneys.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Phenol (108-95-2), 5%. Water (7732-18-5), 95%.

Section 4: First Aid Measures

Always seek professional medical attention after first aid measures are provided.

Eyes: Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.
Skin: Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.
Ingestion: Call Poison Control immediately. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink. Induce vomiting immediately.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Non-flammable solid. When heated to decomposition, emits acrid fumes.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire. Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Contain spill with sand or absorbent material and place in sealed bag or container for disposal. Ventilate and wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.
Storage: Store in Toxic Storage Area [Blue Storage] with other toxic material. Store in a dedicated poison cabinet. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an organic cartridge. Exposure guidelines: Phenol: OSHA PEL: 19 mg/m³, ACGIH: TLV: 19 mg/m³, STEL: N/A.

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9/22/2012
Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>C₆H₅OH.</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>94.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.00 g/mL @ 20°C.</td>
</tr>
<tr>
<td>Vapor Density (air=1)</td>
<td>N/A.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A.</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>N/A.</td>
</tr>
<tr>
<td>Vapor Pressure (20°C)</td>
<td>N/A.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A.</td>
</tr>
<tr>
<td>Autoignition Temp.</td>
<td>N/A.</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear colorless liquid.</td>
</tr>
<tr>
<td>Odor</td>
<td>Sweet, aromatic odor.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A.</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A. (Butyl acetate = 1).</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A.</td>
</tr>
<tr>
<td>pH</td>
<td>N/A.</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A.</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A.</td>
</tr>
</tbody>
</table>

N/A = Not available or applicable

Section 10: Stability and Reactivity

Stability: Stable under normal conditions of use and storage.
Incompatibility: Strong oxidizers, halogens, calcium hypochlorite.
Shelf life: Indefinite shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Sensitization: none expected
Phenol: LD₅₀ [oral, rat]: 317 mg/kg; LC₅₀ [rat]: 316 mg/m³; LD₅₀ Dermal [rabbit]: 500 mg/24hr/Severe Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Toxic to terrestrial and aquatic plants and animals. Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Use a licensed chemical waste disposal firm for proper disposal.

Section 14: Transport Information

DOT Shipping Name: Phenol solutions.
DOT Hazard Class: 6.1, pg II.
Identification Number: UN2821.
Canada TDG: Phenol solution.
Hazard Class: 6.1, pg II.
UN Number: UN2821.

Section 15: Regulatory Information

EINECS: Listed (203-632-7). TSCA: All components are listed or are exempt.
WHMIS Canada: D1A: Very toxic, E: Corrosive material. California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: September 22, 2012
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