

## Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Phenol

Signal Word  
**DANGER**

Flinn Scientific, Inc. P.O. Box 219, Batavia, IL 60510 (800) 452-1261

Chemtrec Emergency Phone Number: (800) 424-10108

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Acute toxicity- oral, dermal, inhalation (Category 3). Toxic if swallowed, in contact with skin or if inhaled (H301+H311+H331). Do not eat, drink or smoke when using this product (P270).



Hazard class: Skin corrosion (Category 1). Causes severe skin burns and eye damage (H314).



Hazard class: Germ cell mutagenicity (Category 2). Suspected of causing genetic defects (H341). Obtain special instructions before use (P201). Do not handle until all safety precautions have been read and understood (P202). Use personal protective equipment as required (P281).



Hazard class: Specific target organ toxicity, repeated exposure (Category 2). May cause damage to organs through prolonged or repeated exposure (H373). Do not eat, drink or smoke when using this product (P270).

Contact with phenol may cause a severe blistering skin effect. Phenol in contact with more than 100 sq. in. of skin is absorbed so quickly that it may be fatal in 90 seconds. Avoid all body tissue contact. Readily absorbed through the skin.

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Phenol	108-95-2	C <sub>6</sub> H <sub>5</sub> OH	94.11	88-100%
Synonyms: Carboic acid; Hydroxybenzene				

### SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician (P311).

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P340).

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

**If on skin:** Remove phenol with isopropyl alcohol or undiluted polyethylene glycol, then wash continuously with SOAPY water for at least 15 minutes. Water alone will increase absorption.

**If swallowed:** Do NOT give water. Do NOT induce vomiting. Call a physician or poison control at once. Water may enhance absorption.

### SECTION 5 — FIRE FIGHTING MEASURES

Class IIIA combustible solid.

NFPA Code

Flash point: 79 °C Flammable limits: Lower: 1.8% Upper: 8.6% Autoignition Temperature: 715 °C

H-4

F-2

Phenol, when heated, forms explosive mixtures with air. When heated to decomposition, may emit toxic fumes.

R-0

In case of fire: Use a tri-class dry chemical fire extinguisher. If this product is involved in a fire carbon monoxide and carbon dioxide can be released.

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## SECTION 6 — ACCIDENTAL RELEASE MEASURES

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Remove all ignition sources and ventilate area. Sweep up (if liquid, contain spill with sand and absorbent material), place in sealed bag or container and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

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## SECTION 7 — HANDLING AND STORAGE

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Flinn Suggested Chemical Storage Pattern: Organic #8. Store with phenols and cresols. Store in a poisons cabinet. Store in a Flinn Chem-Saf™ bag. Keep container tightly closed (P233).

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## SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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Wear protective

Neoprene gloves, protective clothing, and eye protection (P280). Wash hands thoroughly after handling (P264). Wear respiratory protection (P284).

Exposure guidelines: PEL/TLV 5 ppm (OSHA/ACGIH) Odor threshold is 0.04 ppm. Readily absorbed through the skin.

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## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

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White crystalline mass, loose crystals or liquefied.

Boiling point: 181 °C Melting point: 42.5-43 °C

Disinfectant-like odor.

Specific gravity: 1.07 Vapor density: 3.24

Soluble: Water, alcohol and other organic solvents

Vapor pressure: 0.35 mmHg

Explosion limits: Lower: 1.3% vol Upper: 9.5% vol

Partition coefficient (n-octanol/water): 1.46 log POW

Solubility/miscibility with water @ 20°C: 82 g /L

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## SECTION 10 — STABILITY AND REACTIVITY

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Avoid contact with strong oxidizing agents, strong bases, strong acids. Keep away from ignition sources.

Shelf life: Fair to poor. Changes color on exposure to light. Absorbs water from air and liquefies. See Section 7 for further information.

Incompatible materials: air, oxidizing agents, heat

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## SECTION 11 — TOXICOLOGICAL INFORMATION

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Acute effects: Highly toxic, blistering agent, absorbed through skin.

ORL-RAT LD<sub>50</sub>: 317 mg/kg

IHL-RAT LC<sub>50</sub>: 316 mg/m<sup>3</sup>

Chronic effects: Dermatitis.

SKN-RBT LD<sub>50</sub>: 850 mg/kg

Target organs: Liver, kidneys, nervous system, spleen.

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## SECTION 12 — ECOLOGICAL INFORMATION

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Data not yet available.

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## SECTION 13 — DISPOSAL CONSIDERATIONS

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Please review all federal, state and local regulations that may apply before proceeding.

Flinn Suggested Disposal Method #24a is one option.

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## SECTION 14 — TRANSPORT INFORMATION

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Shipping name: Phenol, solid. Hazard class: 6.1, Poison. UN number: UN1671. PG II

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## **SECTION 15 — REGULATORY INFORMATION**

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TSCA-listed, EINECS-listed (203-632-7), RCRA code U188.

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## **SECTION 16 — OTHER INFORMATION**

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N.A. = Not available, not all health aspects of this substance have been fully investigated.

N/A = Not applicable

**Consult your copy of the Flinn Science Catalog/Reference Manual for additional information about laboratory chemicals.**

**Revision Date:** June 6, 2016

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