

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 586.00

Revision Date: April 18, 2012

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Phenol

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

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Phenol

Synonyms: Carbolic acid, Hydroxybenzene

CAS#: 108-95-2

SECTION 3 — HAZARDS IDENTIFICATION

White crystalline mass or loose crystals may be liquefied with a small amount of water. Disinfectant-like odor.

Highly toxic by ingestion, inhalation, or skin contact. Severe body tissue irritant.

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.** Combustible solid.

FLINN AT-A-GLANCE

Health-3

Flammability-1

Reactivity-1

Exposure-3

Storage-3

0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye: Immediately flush with fresh water for at least 15 minutes.

External: Remove phenol with isopropyl alcohol or undiluted polyethylene glycol (300-400 MW), if available, then wash continuously with SOAPY water for at least 15 minutes. Water alone may be harmful.

Internal: 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

Combustible solid.

Flash point: 79 °C Flammable limits: Lower: 1.7% Upper: 8.6% Autoignition Temperature: 715 °C

Phenol, when heated, forms explosive mixtures with air.

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

H-3

F-2

R-0

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from area. 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.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Organic #8. Store with phenols and cresols. Store in a poisons cabinet.

Store in a Flinn Chem-Saf bag. Use and dispense in a hood.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, **Neoprene** gloves, and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

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

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

White crystalline mass, loose crystals or liquefied.
Disinfectant-like odor.
Soluble in water and organic solvents, including alcohol.
Formula: C₆H₅OH
Formula weight: 94.11

Boiling point: 182 °C
Melting point: 42.5-43 °C
Specific gravity: 1.07
Vapor density: 3.24
Vapor pressure: 0.35 mmHg

SECTION 10 — STABILITY AND REACTIVITY

Avoid contact with strong oxidizing agents, strong bases, strong acids.
Shelf life: Fair to poor. Changes color on exposure to light; absorbs water from air and liquifies.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Highly toxic, blistering agent, absorbed through skin. ORL-RAT LD₅₀: 317 mg/kg
Chronic effects: Dermatitis. IHL-RAT LC₅₀: 316 mg/m³
Target organs: Liver, kidneys, nervous system, spleen. SKN-RBT LD₅₀: 850 mg/kg

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

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply, before proceeding.
Flinn Suggested Disposal Method #24a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Phenol, solid
Hazard class: 6.1, Poison
UN number: UN1671
N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

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