

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 586.00

Revision Date: September 17, 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: Carboic 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

Seek medical attention for further treatment, observation and support immediately after first aid.

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

External: 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.

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.	Boiling point: 182 °C
Disinfectant-like odor.	Melting point: 42.5-43 °C
Soluble in water and organic solvents, including alcohol.	Specific gravity: 1.07
Formula: C ₆ H ₅ OH	Vapor density: 3.24
Formula weight: 94.11	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 LD ₅₀ : 317 mg/kg
Chronic effects: Dermatitis.	IHL-RAT LC ₅₀ : 316 mg/m ³
Target organs: Liver, kidneys, nervous system, spleen.	SKN-RBT LD ₅₀ : 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

This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. The data should not be confused with local, state, federal or insurance mandates, regulations, or requirements and CONSTITUTE NO WARRANTY. Any use of this data and information must be determined by the science instructor to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use and disposal of the product(s) described are beyond the control of Flinn Scientific, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).

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