

## Safety Data Sheet (SDS)

### SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Benzene

Signal Word  
**DANGER**

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

Chemtrec Emergency Phone Number: (800) 424-9470

Pictograms

### SECTION 2 — HAZARDS IDENTIFICATION

Hazard class: Flammable liquids (Category 2). Highly flammable liquid and vapor (H225). Keep away from heat, sparks, open flames, and hot surfaces (P210).



Hazard class: Acute toxicity, oral (Category 4). Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P270).



Hazard class: Skin and serious eye damage, corrosion or irritation (Category 2, 2A). Causes skin and serious eye irritation (H315+H319).



Hazard class: Acute toxicity, inhalation (Category 5). May be harmful if inhaled (H333).

Hazard class: Germ cell mutagenicity and carcinogenicity (Category 1). May cause genetic defects (H340). May cause cancer (H350). 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).  
Known human carcinogen (IARC-1)

### SECTION 3 — COMPOSITION, INFORMATION ON INGREDIENTS

Component Name	CAS Number	Formula	Formula Weight	Concentration
Benzene	71-43-2	C <sub>6</sub> H <sub>6</sub>	78.11	
Synonyms: Benzol				

### SECTION 4 — FIRST AID MEASURES

**If exposed or concerned:** Get medical advice or attention (P308+P313).

**If inhaled:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. **If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing (P305+P351+P338).

**If eye irritation persists eyes:** Get medical advice or attention (P337+P313). **If on skin:** Immediately remove all contaminated clothing. Rinse skin with water (P303+P361+P353).

**If swallowed:** Immediately call POISON CENTER or physician. Do NOT induce vomiting (P301+P310+P331).

### SECTION 5 — FIRE FIGHTING MEASURES

Class IB flammable liquid.

NFPA Code

Flash point: -11 °C Flammable limits: Lower: 1.3% Upper: 7.8% Autoignition Temperature: 498 °C

H-1

F-3

When heated to decomposition, may emit toxic fumes.  
In case of fire: Use a tri-class dry chemical fire extinguisher.

R-0

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## SECTION 6 — ACCIDENTAL RELEASE MEASURES

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Remove all ignition sources and ventilate area. Contain the spill with sand or other inert absorbent material and deposit in a sealed bag or container. 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 #3. Store with hydrocarbons, oils, esters and aldehydes. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor™ can. Keep container tightly closed (P233). Keep cool (P235). Ground or bond container and receiving equipment (P240). Take precautionary measures against static discharge (P243). Use only in a hood or in a well-ventilated area.

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## SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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Wear protective gloves, protective clothing, and eye protection (P280). Wash protective gloves and clothing after handling (P280). Wash hands thoroughly after handling (P264). Use only in a hood or in a well-ventilated area. Exposure guidelines: PEL 1 ppm, STEL 5 ppm (OSHA) TLV 0.5 ppm Ceiling 2.5 (ACGIH) Readily absorbed through the skin.

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## SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

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Colorless liquid. Gasoline-like odor.	Boiling point: 80 °C
Soluble: Slightly in water. Miscible with alcohol, ether, acetone, carbon tetrachloride, carbon disulfide, and acetic acid.	Melting point: 5.5 °C
	Refractive index: 1.50
	Specific gravity: 0.88

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## SECTION 10 — STABILITY AND REACTIVITY

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Avoid contact with aluminum chloride, sulfuric acid, and oxidizing agents.  
Shelf life: Good, if stored properly.

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## SECTION 11 — TOXICOLOGICAL INFORMATION

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Acute effects: Severe eye irritant, nausea, dizziness, and headache.	ORL-RAT LD <sub>50</sub> : 930 mg/kg
Chronic effects: Carcinogen and mutagen.	IHL-RAT LC <sub>50</sub> : 10,000 ppm/7H
Target organs: Blood and bone marrow.	SKN-RBT LD <sub>50</sub> : greater than 9.4 mL/kg

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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 #18b is one option.

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## SECTION 14 — TRANSPORT INFORMATION

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Shipping name: Benzene. Hazard class: 3, Flammable liquid. UN number: UN1114.

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## SECTION 15 — REGULATORY INFORMATION

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TSCA-listed, EINECS-listed (200-753-7), RCRA U019.

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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.**

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