

Benzene 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 ₆ H ₆	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.

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

NFPA Code
H-1

Temperature: 498 °C

F-3

When heated to decomposition, may emit toxic fumes.

R-0

In case of fire: Use a tri-class dry chemical fire extinguisher.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 — HANDLING AND STORAGE

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.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

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.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

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

SECTION 10 — STABILITY AND REACTIVITY

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

SECTION 11 — TOXICOLOGICAL INFORMATION

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

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 #18b is one option.

SECTION 14 — TRANSPORT INFORMATION

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

SECTION 15 — REGULATORY INFORMATION

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

SECTION 16 — OTHER INFORMATION

This Safety Data Sheet (SDS) 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).

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: March 21, 2014
