**IDENTIFICATION**

**MSDS Record Number:** 4630773  
**Product Name(s):** Benzene  
**Product Identification: CAS NO.:** 71-43-2  
**Date of MSDS:** 1997-04-15  
**Currency Note:** This MSDS was provided to CCOHS on 2005-06-10

**MANUFACTURER/SUPPLIER INFORMATION**

**Company:** ALBEMARLE CORP

**MATERIAL SAFETY DATA**

3.0.7 ETH 751 E Benzene 04/15/97CY

ALBEMARLE CORPORATION
MATERIAL SAFETY DATA SHEET
451 FLORIDA STREET, BATON ROUGE, LA 70901
FOR EMERGENCIES ONLY - Phone (225) 344-7147
For Non-emergency Health & Safety Phone 1-800-535-3030
Representing Albemarle Foreign Sales Corporation for Export Sales

HMIS CLASSIFICATIONS:  
ISSUE DATE: 04/15/97
HEALTH: 2  
SUPERSEDES: 04/05/93
FLAMMABILITY: 3
REACTIVITY: 0

PRODUCT IDENTIFICATION

PRODUCT NAME: Benzene  
CHEMICAL NAME: Benzene  
CAS NO.: 71-43-2  
CHEMICAL FORMULA: C6H6

SUMMARY OF HAZARDS
EXTREMELY FLAMMABLE!
See 'Chronic Effects of Overexposure.'
See 'Other Health Effects.'

OSHA HAZARDOUS COMPONENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO.</th>
<th>NOTE</th>
<th>EXPOSURE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>@##</td>
<td>10 ppm TWA8</td>
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EMERGENCY PHONE NUMBER  PRODUCT NAME: Benzene
(225) 344-7147

OSHA HAZARDOUS COMPONENTS (Con't)
NOTE: Carcinogenicity listing of components at concentrations
greater than or equal to 0.1% indicated by: @=NTP; #=IARC,
&=OSHA; +=AGIHI; *=OTHER; ND=Not Designated.

CHEMICAL AND PHYSICAL PROPERTIES
APPEARANCE/ODOR: Colorless liquid/aromatic odor.
BOILING POINT: 80°C/176°F.
VAPOR PRESSURE: 100 mm Hg (@ 26°C/79°F).
VAPOR DENSITY: 2.8 (Air = 1).
SOLUBILITY IN WATER: Negligible.
SPECIFIC GRAVITY: 0.88 (@ 25°C/77°F).
EVAPORATION RATE: < 1 (Ether = 1).
PERCENT VOLATILE: 100%.

FIRE AND EXPLOSION HAZARDS
FLASH POINT (METHOD): -11°C/12°F (TCC).
FLAMMABLE LIMITS: LEL = 1.4% UEL = 7.9%
EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam
or carbon dioxide.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Include oxides of
carbon.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray or fog to
cool exposed equipment and containers. Do not breathe
smoke or vapors.
UNUSUAL FIRE AND EXPLOSION HAZARDS: A vapor accumulation may
flash and/or explode if ignited.

REACTIVITY DATA
STABILITY: Stable.
CONDITIONS TO AVOID: Heat, sparks, flame and other sources
of ignition.
MATERIALS TO AVOID: Oxygen, strong oxidizing agents, strong
acids or bases and selected amines.
HAZARDOUS POLYMERIZATION: Will not occur.

HEALTH HAZARDS
INHALATION: Expected to be irritating to respiratory tract.
Symptoms of overexposure to vapors include drowsiness,
weakness, headache, dizziness and nausea.
EYE CONTACT: Not expected to be an eye irritant.
SKIN CONTACT: Not expected to be a skin irritant. Causes
dizziness, excitation, weakness, headache and breathlessness. Repeated or prolonged skin contact may cause dermatitis and defatting.

INGESTION: Not expected to be acutely toxic. Causes dizziness, excitation, weakness, headache and breathlessness.

CHRONIC EFFECTS OF OVEREXPOSURE: This product contains benzene. Repeated or prolonged overexposure to benzene has been associated with depression of the bone marrow in humans, and conditions such as anemia and leukemia.

OTHER HEALTH EFFECTS: This product contains benzene. Literature data indicate that benzene causes cardiac stimulation and arrhythmia (irregular heart beat) in the laboratory animal.

EMERGENCY FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If 04/15/97

EMERGENCY PHONE NUMBER PRODUCT NAME: Benzene
(225) 344-7147

3.0.7

EMERGENCY FIRST AID PROCEDURES (Con't)

breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Begin immediate eye irrigation with cool water.

SKIN CONTACT: Flush skin with plenty of water. Get medical attention. Wash clothing before reuse.

INGESTION: If swallowed, give two glasses of water. Do not induce vomiting. Get medical attention.

EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS: See "Hazardous Components" section.

EYE PROTECTION: Chemical goggles or safety glasses.

PROTECTIVE GLOVES: Resistant to chemical penetration.

RESPIRATORY PROTECTION: NIOSH approved organic vapor respirator when exposed to vapor from heated material.

LOCAL EXHAUST VENTILATION: At source of vapor.

MECHANICAL VENTILATION: Recommended.

OTHER: If repeated or prolonged skin contact or contamination of clothing is likely, protective clothing should be worn.

ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS: Ventilate area. Remove sources of ignition. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

DISPOSAL METHODS: Under the CERCLA/RCRA regulations

EMERGENCY PHONE NUMBER PRODUCT NAME: Benzene
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3.0.7
ENVIROMENTAL PROTECTION (Con't)
currently in effect, this material is regulated as a
hazardous waste or material. Therefore, it must be
disposed of in a "permitted" hazardous waste facility
in compliance with EPA and/or other applicable local,
state, and federal regulations. It should be handled in
a manner acceptable to good waste management practice.

STORAGE REQUIREMENTS: Store in cool, dry, well-ventilated
area away from sources of ignition. Keep containers
closed when not in use.

ADDITIONAL PRECAUTIONS OR COMMENTS
ADDITIONAL PRECAUTIONS OR COMMENTS: Do not breathe high
concentrations of vapors. Ground containers when
emptying or filling.

REGULATORY INFORMATION
TSCA:
THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES
CONTROL ACT (15 USC 2601 - 2629).

DOT DESCRIPTION/PROPER SHIPPING NAME:
Benzene
See NOTE 1.

DOT HAZARD CLASS: 3 (flammable)

DOT ID NUMBER: UN1114

04/15/97

EMERGENCY PHONE NUMBER PRODUCT NAME: Benzene
(225) 344-7147

3.0.7

REGULATORY INFORMATION (Con't)
HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

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<thead>
<tr>
<th>HEALTH</th>
<th>PHYSICAL</th>
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FOLLOWING ARE WHMIS CLASSIFICATIONS FOR THIS PRODUCT:
CLASS B, DIVISION 2
CLASS D, DIVISION 2A

WHMIS TRADE SECRECY EXEMPTION NUMBER: Not applicable.

NOTE 1: See CERCLA for Reportable Quantity.

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<tr>
<th>COMPONENT NAME</th>
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<th>PERCENTAGE</th>
<th>REGULATION</th>
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</table>
MSDS prepared by: Health & Environment Department
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:
HEALTH AND ENVIRONMENT DEPARTMENT
ALBEMARLE CORPORATION
451 FLORIDA ST.
BATON ROUGE, LA. 70801
(800) 535-3030

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST
THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD
COMMUNICATION RULE, 29 CFR 1910.1200(g) (2).

THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH
USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY
INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE
THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO
INSTRUCT EMPLOYEES AND TO DEVELOP WORK PRACTICE PROCEDURES
FOR A SAFE WORK ENVIRONMENT.

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR
KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, BECAUSE THE
CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE
MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR
DAMAGES INCURRED BY THE USE OF THIS MATERIAL. IT IS THE
RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL,
STATE, AND LOCAL LAWS AND REGULATIONS.

04/15/97

October, 2007 Issue

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