IDENTIFICATION

MSDS Record Number: 4630859
Product Name(s): Bromobenzene
Product Identification: CAS NO.: 108-86-1
Date of MSDS: 1997-03-06
Currency Note: This MSDS was provided to CCOHS on 2005-06-10

MANUFACTURER/SUPPLIER INFORMATION

Company: ALBEMARLE CORP

MATERIAL SAFETY DATA

48.0.7 ETH 6007 Bromobenzene 03/06/97CN
ALBEMARLE CORPORATION
MATERIAL SAFETY DATA SHEET
451 FLORIDA STREET, BATON ROUGE, LA 70801
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: 03/06/97
HEALTH: 2 SUPERSEDES: 10/30/95
FLAMMABILITY: 2
REACTIVITY: 0

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PRODUCT IDENTIFICATION
PRODUCT NAME: Bromobenzene
CHEMICAL NAME: Bromobenzene
CAS NO.: 108-86-1
SYNONYMS: Phenyl bromide, Monobromobenzene
CHEMICAL FORMULA: C6H5Br
CHEMICAL FAMILY: Aromatic Halide

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SUMMARY OF HAZARDS
COMBUSTIBLE
Skin and eye irritant.
Toxic by inhalation, ingestion and skin absorption.
See "Chronic Effects of Overexposure."

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OSHA HAZARDOUS COMPONENTS
CHEMICAL NAME          CAS NO.   NOTE       EXPOSURE LIMIT
---------------------------------------------
Bromobenzene            108-86-1   ND        Not established by OSHA/ACGIH.

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

CHEMICAL AND PHYSICAL PROPERTIES
APPEARANCE/ODOR: Colorless liquid/characteristic pleasant odor.
BOILING POINT: 156°C/312.8°F @ 760 mm Hg.
VAPOR PRESSURE: 5 mm Hg @ 25°C/77°F.
SOLUBILITY IN WATER: Slightly soluble.
SPECIFIC GRAVITY: 1.495.
PERCENT VOLATILE: 100.
MOLECULAR WEIGHT: 157.02
MELTING POINT: -31°C/-23.8°F.

FIRE AND EXPLOSION HAZARDS
FLASH POINT(METHOD): 51°C/123.8°F (FMCC).
FLAMMABLE LIMITS: Not available.
EXTINGUISHING MEDIA: Dry chemical, water spray (fog), foam or carbon dioxide.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Include oxides of carbon, hydrogen bromide and bromine.
SPECIAL FIRE FIGHTING PROCEDURES: Use self-contained breathing apparatus. Use water spray or fog to cool exposed equipment and containers. Do not breathe smoke or vapors.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Toxic fumes of hydrogen bromide emitted on combustion.

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REACTIVITY DATA
STABILITY: Stable.
CONDITIONS TO AVOID: Avoid all sources of ignition such as heat, spark, open flame and static electricity.
MATERIALS TO AVOID: Strong oxidizing materials, acids, bases, and combustible materials.
HAZARDOUS POLYMERIZATION: Will not occur.

HEALTH HAZARDS
INHALATION: Expected to be toxic. Inhalation of vapors may cause headache, mental confusion, depression, fatigue, loss of appetite, nausea, vomiting, loss of sense of balance, and visual disturbances. May cause pulmonary edema and pneumonia.
EYE CONTACT: Expected to be an eye irritant.
SKIN CONTACT: Expected to be a skin irritant. Expected to be toxic by dermal absorption.
INGESTION: Expected to be toxic. Symptoms of overexposure include abdominal cramps, nausea, vomiting and diarrhea, headache, extensive sweating, listlessness, and confusion. Harmful if aspirated into the lungs—do not induce vomiting.
CHRONIC EFFECTS OF OVEREXPOSURE: Liver and kidney effects have been produced in laboratory animals.

EMERGENCY FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.
EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
SKIN CONTACT: Immediately flush skin with plenty of water.

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EMERGENCY FIRST AID PROCEDURES (Con’t)
for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Destroy contaminated shoes.

INGESTION: If swallowed, give two glasses of water. Get medical attention promptly.

EXPOSURE CONTROL INFORMATION

EXTINGUISHING MEDIA: Not established by OSHA or ACGIH.
EYE PROTECTION: Chemical goggles and face shield.
PROTECTIVE GLOVES: Resistant to chemical penetration.
RESPIRATORY PROTECTION: Full facepiece, NIOSH approved organic vapor respirator.
LOCAL EXHAUST VENTILATION: At source of vapor.
MECHANICAL VENTILATION: Recommended.
OTHER: If 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 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

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ENVIRONMENTAL PROTECTION (Con't)
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.

REGULATORY INFORMATION

TSCA:

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

DOT DESCRIPTION/PROPER SHIPPING NAME:

Bromobenzene

DOT HAZARD CLASS: 3 (flammable)

DOT ID NUMBER: UN2514

DOT PACKING GROUP: III

HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>PHYSICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate (Acute)</td>
<td>Fire</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Delayed (Chronic)</td>
<td>Sudden Release of Pressure</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Reactive</td>
<td>Nuisance Mist/Dust Only</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
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</tbody>
</table>

NOTE 2: Combustible materials are not regulated for transportation in 'non-bulk' packagings.

<table>
<thead>
<tr>
<th>COMPONENT NAME</th>
<th>CAS NO.</th>
<th>PERCENTAGE</th>
<th>REGULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromobenzene</td>
<td>108-86-1</td>
<td>99.0</td>
<td>NJ RTK</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>PA RTK</td>
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</tbody>
</table>

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PRODUCT NAME: Bromobenzene

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.

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www.ccohs.ca E-mail: clientservice@ccohs.ca Fax: (905) 572-2206 Phone: (905) 572-2981
Mail: 135 Hunter Street East, Hamilton Ontario L8N 1M5