Section 1 - Product and Company Information

Product Name 2,4'-DIBROMOACETOPHENONE, 98%
Product Number D38308
Brand ALDRICH
Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS MO 63103 US
Technical Phone: 314 771 5765
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 5052

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4'-DIBROMOACETOPHENONE, 98%</td>
<td>99-73-0</td>
<td>No</td>
</tr>
</tbody>
</table>

Formula C8H6Br2O
Synonyms
- 4-Bromo(bromoacetyl)benzene * Bromomethyl
- p-bromophenyl ketone * Bromomethyl 4-bromophenyl ketone * p-Bromophenacyl-8 * p-Bromophenacyl bromide * 4-Bromophenacyl bromide *
- alpha,p-Dibromoacetophenone *
- alpha,4-Dibromoacetophenone *
- p,alpha-Dibromoacetophenone *
- omega,4-Dibromoacetophenone *
- 2,4'-Dibromoacetophenone *
- 4,alpha-Dibromoacetophenone *
- Ethanone, 2-bromo-1-(4-bromophenyl)- (9CI)

RTECS Number: AM6950000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
- Corrosive.
- Causes burns. Irritating to eyes and respiratory system.
- Lachrymator.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
- If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
- If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

EYE EXPOSURE
Assure adequate flushing of the eyes by separating the eyelids with fingers.

Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

EXPOSURE HAZARD(S)
Material: Corrosive. Lachrymator.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT
Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.
Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Color: Faintly yellow</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Fine crystals</td>
<td></td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>277.95 AMU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
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<td></td>
</tr>
<tr>
<td>BP/BP Range</td>
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<td></td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>108 °C</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
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<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
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<td></td>
</tr>
<tr>
<td>Vapor Density</td>
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<td></td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
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<td></td>
</tr>
<tr>
<td>SG/Density</td>
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<td></td>
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<tr>
<td>Bulk Density</td>
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<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Volatile%</td>
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<td></td>
</tr>
<tr>
<td>VOC Content</td>
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<td></td>
</tr>
<tr>
<td>Water Content</td>
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<tr>
<td>Solvent Content</td>
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<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
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<td></td>
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<tr>
<td>Viscosity</td>
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<td></td>
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<tr>
<td>Surface Tension</td>
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<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Decomposition Temp.</td>
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<td></td>
</tr>
<tr>
<td>Flash Point</td>
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<td></td>
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<tr>
<td>Explosion Limits</td>
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<tr>
<td>Flammability</td>
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<td>Autoignition Temp</td>
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<td>Refractive Index</td>
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<td>Optical Rotation</td>
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<tr>
<td>Miscellaneous Data</td>
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</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Materials to Avoid: Strong reducing agents, Strong bases, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen bromide gas.

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Multiple Routes: Harmful if swallowed, inhaled, or absorbed through skin.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary
edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**TOXICITY DATA**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Intravenous</td>
<td>Mouse</td>
<td>18 MG/KG</td>
</tr>
</tbody>
</table>

**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations**

**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information**

**DOT**
- Proper Shipping Name: Corrosive solid, acidic, organic, n.o.s.
- UN#: 3261
- Class: 8
- Packing Group: Packing Group II
- Hazard Label: Corrosive
- PIH: Not PIH

**IATA**
- Proper Shipping Name: Corrosive solid, acidic, organic, n.o.s.
- IATA UN Number: 3261
- Hazard Class: 8
- Packing Group: II

**Section 15 - Regulatory Information**

**EU ADDITIONAL CLASSIFICATION**
- Symbol of Danger: C
- Indication of Danger: Corrosive.
- R: 34
- Risk Statements: Causes burns.
- S: 26-36/37/39-45
- Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**US CLASSIFICATION AND LABEL TEXT**
- Indication of Danger: Corrosive.
- Risk Statements: Causes burns. Irritating to eyes and
respiratory system.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves, and eye/face protection.
US Statements: Lachrymator.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.
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