Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Phenylacetaldehyde, 95+%
Product Number: 107395
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5766
Emergency Phone: 414 273 3850 Ext. 5996
Fax: 800 325 0552

Section 2 - Composition/Information on Ingredient

Substance Name: PHENYLACETALDEHYDE
CAS #: 122-78-1
SARA 313: No
EC no: 204-574-5
Annex I Index Number: 2

Formula: C8H8O
Synonyms: Acetaldehyde, phenyl, Hycanicin, Phenylacetaldehyde, Phenylacetic aldehyde, Phenylethanal, alpha-Tolualdehyde, alpha-Toluic aldehyde

Section 3 - Hazards Identification

Emergency Overview:
Harmful
Harmful if swallowed. Irritating to eyes, respiratory system and skin.
Combustible.

HMIS Rating:
Health: 2
Flammability: 2
Reactivity: 0

NFPA Rating:
Health: 2
Flammability: 2
Reactivity: 0

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.

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

Flash Point: 188.6 °F
Autoignition Temp: N/A

Extinguishing Media
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

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

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling
User Exposure
Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable: Keep tightly closed. Keep away from heat and open flame. Store at 2-8°C

Special Requirements
Store under inert gas.

Section 8 - Exposure Controls / PPE

Engineering Controls
Mechanical exhaust required. Safety shower and eye bath.

Personal Protective Equipment
Respiratory
Government approved respirator.
Hand
Compatible chemical-resistant gloves.
Eye
Chemical safety goggles.

Aldrich Chemical - 107395
Sigma-Aldrich Corporation
www.sigma-aldrich.com
Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
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<tbody>
<tr>
<td>Molecular Weight</td>
<td>120.15 AMU</td>
<td></td>
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<tr>
<td>pH</td>
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<tr>
<td>Boiling Point</td>
<td>190 °C</td>
<td>760 mmHg</td>
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<td>Freezing Point</td>
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<td>Vapor Pressure</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<td>SGR/Density</td>
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<td>Bulk Density</td>
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<tr>
<td>Odor Threshold</td>
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<tr>
<td>Volatility %</td>
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<tr>
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<tr>
<td>Solvent Content</td>
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<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Viscosity</td>
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<td>Partition Coefficient</td>
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<td>Method: closed cup</td>
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<td>Explosion Limits</td>
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<td>Flammability</td>
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<tr>
<td>Autoignition Temp</td>
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<td>Refractive Index</td>
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<td>Solubility</td>
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</table>

Section 10 - Stability and Reactivity

Stability
- Stable

Materials to Avoid
- Strong oxidizing agents, Strong bases

Hazardous Decomposition Products
- Carbon monoxide, Carbon dioxide

Section 11 - Toxicological Information

Route of Exposure
- Skin Contact: Causes skin irritation.
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: Causes eye irritation.
- Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: CY1420000

Toxicity Data
- Oral - Rat: 1550 mg/kg (LD50)
- Oral - Mouse: 3690 mg/kg (LD50)
- Inhalation - Mouse: 2,000 mg/m³ (LC50)
- Skin - Rabbit: > 5000 mg/kg (LD50)
- Oral - Guinea pig: 5090 mg/kg (LD50)

Irritation Data
- Skin - Human: 2 % 48H

Section 12 - Ecological Information

No data available.

Section 14 - Transport Information

DOT
- Proper Shipping Name: Combustible liquid, n.o.s.
- UN#: 1902
- Class: COMBUSTIBLE LIQUID
- Packing Group: Packing Group III
- Hazard Label: None
- PIH: Not PIH

IATA
- Non-Hazardous for Air Transport: Non-hazardous for air transport.
Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: Xn
Indication of Danger
 Harmful.
Risk Statements R: 22 36/37/38
Harmful if swallowed. Imitating to eyes, respiratory system and skin.
Safety Statements S: 26 36
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Classification and Label Text
Indication of Danger
 Harmful.
Risk Statements
Harmful if swallowed. Imitating to eyes, respiratory system and skin.
Safety Statements
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.
US Statements
Combustible.

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. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.