SAFETY DATA SHEET
Phenacetin

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Code: 20082
Product Name: Phenacetin
Synonyms: N-(4-ethoxyphenyl)-acetamide; p-Acetophenetidide; 4’-Ethoxyacetanilide; NSC 7651;

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108
Web site address: www.caymanchem.com
Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:
Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300
CHEMTREC Outside USA and Canada: +1 (703)527-3887

Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:
Acute Toxicity: Oral, Category 4
Germ Cell Mutagenicity, Category 2
Carcinogenicity, Category 1B
Specific Target Organ Toxicity (repeated exposure), Category 1

2.2 Label Elements:

GHS Signal Word: Danger

GHS Hazard Phrases:
H302: Harmful if swallowed.
H341: Suspected of causing genetic defects.
H350: May cause cancer.
H372: Causes damage to organs through prolonged or repeated exposure.

GHS Precaution Phrases:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe (dust/fume/gas/mist/vapors/spray).
P264: Wash (hands) thoroughly after handling.
P280: Wear (protective gloves/protective clothing/eye protection/face protection).

GHS Response Phrases:
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P308+313: IF exposed or concerned: Get medical attention/advice.
P314: Get medical attention/advice if you feel unwell.
P330: Rinse mouth.

GHS Storage and Disposal Phrases:
2.3 Adverse Human Health

Effects and Symptoms:

Causes damage to organs through prolonged or repeated exposure.

Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation or skin absorption.

May cause cancer.

May cause eye, skin, or respiratory system irritation.

Suspected of causing genetic defects.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS # / RTECS #</th>
<th>Hazardous Components (Chemical Name)/REACH Registration No.</th>
<th>Concentration</th>
<th>EC No./ EC Index No.</th>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2 AM4375000</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td>100.0 %</td>
<td>200-533-0 NA</td>
<td>Acute Tox (O) 4: H302 Mutagen 2: H341 Carcinogen 1B: H350 STOT (RE) 1: H372</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Unsuitable Extinguishing Media: A solid water stream may be inefficient.

5.2 Flammable Properties and Hazards:

Flash Pt: No data available.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Section 6. Accidental Release Measures

6.1 Protective Precautions, Equipment and Emergency Procedures:  
- **6.1.1 Methods and Material For Containment and Cleaning**  
  - Contain spill and collect, as appropriate.  
  - Transfer to a chemical waste container for disposal in accordance with local regulations.

- **6.1.2 Protective Precautions, As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).**
- **6.1.3 Environmental Precautions:**  
  - Take steps to avoid release into the environment, if safe to do so.

6.2 Environmental Precautions:
- **Section 7. Handling and Storage**

- **7.1 Precautions To Be Taken in Handling:**  
  - Avoid breathing dust/fume/gas/mist/vapours/spray.  
  - Avoid prolonged or repeated exposure.

- **7.2 Precautions To Be Taken in Storing:**  
  - Keep container tightly closed.  
  - Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>Britain EH40</th>
<th>France VL</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls:

8.2.1 Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment:

- **Eye Protection:** Safety glasses
- **Protective Gloves:** Compatible chemical-resistant gloves
- **Other Protective Clothing:** Lab coat
- **Respiratory Equipment:** NIOSH approved respirator, as conditions warrant.
- **Work/Hygienic/Maintenance Practices:**  
  - Do not take internally.  
  - Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.  
  - Wash thoroughly after handling.  
  - No data available.
**Section 9. Physical and Chemical Properties**

9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical States:</th>
<th>[ ] Gas</th>
<th>[ ] Liquid</th>
<th>[ X ] Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor:</td>
<td>A crystalline solid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No data available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: No data.</td>
<td>UEL: No data.</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Autoignition Pt:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.2 Other Information

| Percent Volatile: | No data. |
| Molecular Formula & Weight: | C10H13NO2 179.2 |

**Section 10. Stability and Reactivity**

10.1 Reactivity: No data available.

10.2 Stability: Unstable [ ] Stable [ X ]

10.3 Stability Note(s): Stable if stored in accordance with information listed on the product insert.

10.4 Conditions To Avoid: No data available.

10.5 Incompatibility - Materials

<table>
<thead>
<tr>
<th>To Avoid:</th>
<th>strong acids</th>
</tr>
</thead>
<tbody>
<tr>
<td>strong bases</td>
<td></td>
</tr>
<tr>
<td>strong oxidizing agents</td>
<td></td>
</tr>
<tr>
<td>strong reducing agents</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous

| Decomposition or | carbon dioxide |
| Byproducts: | carbon monoxide |
| | nitrogen oxides |
SAFETY DATA SHEET
Phenacetin

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.

Phenacetin - Toxicity Data: Oral LD50 (rat): 1650 mg/kg; Intraperitoneal LD50 (rat): 634 mg/kg; Oral LD50 (mouse): 866 mg/kg; Intraperitoneal LD50 (mouse): 540 mg/kg; Subcutaneous LD50 (mouse): 1625 mg/kg;

Chronic Toxicological Effects: Phenacetin - Investigated as a drug, mutagen, reproductive effector, and tumorigen.

Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Phenacetin RTECS Number: AM4375000

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section 12. Ecological Information

12.1 Toxicity: Avoid release into the environment.
Runoff from fire control or dilution water may cause pollution.

12.2 Persistence and Degradability: No data available.

12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB assessment: No data available.

12.6 Other adverse effects: No data available.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):
DOT Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Phenacetin)
DOT Hazard Class: 9 - CLASS 9
UN/NA Number: UN3077 Packing Group: III

14.1 LAND TRANSPORT (European ADR/RID):
ADR/RID Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Phenacetin)
UN Number: 3077 Packing Group: III
Hazard Class: 9 - CLASS 9

14.3 AIR TRANSPORT (ICAO/IATA):
ICAO/IATA Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Phenacetin)
UN Number: 3077 Packing Group: III
Hazard Class: 9 - CLASS 9 IATA Classification: 9

Additional Transport Information: Transport in accordance with local, state, and federal regulations.
When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10.
Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

**Section 15. Regulatory Information**

### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td>No</td>
<td>Yes 100 LB</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>62-44-2</td>
<td>Acetamide, N-(4-Ethoxyphenyl)-</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 5A(2), 12(b); CA PROP.65: Yes</td>
</tr>
</tbody>
</table>

**Regulatory Information**

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

**Statement:**

No 1272/2008.

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**Section 16. Other Information**

**Revision Date:** 08/17/2016

**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:**

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.