IDENTIFICATION

MSDS Record Number: 5617337
Product Name(s): ACETANILIDE
Product Identification: MSDS NUMBER: A0302
                      PRODUCT CODE: A068, A069, 0053
                      C.A.S. NUMBER: 103-84-4
Date of MSDS: 2007-01-24
Currency Note: This MSDS was acquired from the supplier on 2007-09-06.

MANUFACTURER/SUPPLIER INFORMATION

Company: MALLINCKRODT BAKER INC

MATERIAL SAFETY DATA

Effective Date: 01/24/07
Supercedes: 08/10/04

==== MATERIAL SAFETY DATA SHEET
====
From: Mallinckrodt Baker, Inc.
       222 Red School Lane
       Phillipsburg, NJ 08865
Emergency Telephone Number: 908-859-2151

CHEMTREC: 800-424-9300 (USA)
703-527-3887 (Outside USA & CANADA)
CANUTEC: 613-996-6666

NOTE: Use CHEMTREC and CANUTEC phone numbers only in the event of a chemical emergency.

All non-emergency questions should be directed to Customer Service
(1-800-582-2537) for assistance.

MALLINCKRODT

J. T. BAKER

ACETANILIDE

1. Product Identification

   Synonyms: N-Phenylacetamide; Acetamidobenzene; Acetic Acid
              Anilide; Acetanil; Acetylaminobenzene; N-Acetylaniline;
              n-Phenyl Acetamide

   CAS No: 103-84-4
   Molecular Weight: 135.17
2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetanilide</td>
<td>103-84-4</td>
<td>99 - 100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE CYANOSIS.

SAF-T-DATA(tm) Ratings (Provided here for your convenience)

<table>
<thead>
<tr>
<th>Health Rating</th>
<th>Flammability Rating</th>
<th>Reactivity Rating</th>
<th>Contact Rating</th>
<th>Lab Protective Equip</th>
<th>Storage Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Slight (Life)</td>
<td>1 - Slight</td>
<td>1 - Slight</td>
<td>2 - Moderate</td>
<td>GOGGLES; LAB COAT; PROPER GLOVES</td>
<td>Green (General Storage)</td>
</tr>
</tbody>
</table>

Potential Health Effects

Inhalation:
Inhalation of dust or vapors may cause irritation to the respiratory tract and mucous membranes. May cause skin eruptions.

Ingestion:
High toxicity in man. Several grams may produce poisoning with circulatory collapse, cold extremities, paleness and feeble rapid pulse. Cyanosis is the prominent effect.

Skin Contact:
Causes irritation to skin. Symptoms include redness, itching, and pain.

Eye Contact:
Causes irritation, redness, and pain.

Chronic Exposure:
Lengthy exposures may affect the ability of blood to carry oxygen (methemoglobinemia), resulting in bluish discoloration of lips and tongue (cyanosis). May also result in damage to the blood-forming organs, with anemia.

Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:
If inhaled, remove to fresh air. Administer amyl nitrite and oxygen if symptoms occur. Keep patient warm and at rest. DO NOT GIVE MOUTH-TO-MOUTH RESUSCITATION. Get medical attention.

Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Fire:
Flash point: 174°C (345°F) CC
Autoignition temperature: 530°C (968°F)
Combustible solid. Moderate fire hazard when exposed to heat or flame.

Explosion:
Above the flash point, explosive vapor-air mixtures may be formed.

Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8.
Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
None established.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved):
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: White shining crystalline leaflets or white crystalline powder.

Boiling Point: 304°C (579°F)

Odor: Odorless.

Melting Point: 113 – 115°C (235 – 239°F)

Solubility: 1gm/185 ml water

Vapor Density (Air=1): 4.65

Specific Gravity: 1.219 @ 15°C/4°C

Vapor Pressure (mm Hg): 1 @ 114°C (237°F)

pH: No information found.

Evaporation Rate (BuAc=1): No information found.

% Volatiles by volume @ 21°C (70°F): 0

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Appreciably volatile at 95°C (203°F).

Hazardous Decomposition Products:
Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous Polymerization:
Will not occur.
Incompatibilities:
Caustics, strong bases and strong oxidizers.

Conditions to Avoid:
Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Oral rat LD50: 800 mg/kg. Investigated as a mutagen.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NTP Known</th>
<th>Carcinogen Anticipated</th>
<th>IARC Category</th>
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<tbody>
<tr>
<td>Acetanilide (103-84-4)</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

12. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
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<tr>
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<th>Korea</th>
<th>DSL</th>
<th>NDSL</th>
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<table>
<thead>
<tr>
<th>Federal, State &amp; International Regulations - Part 1</th>
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</table>

5 of 7
### Ingredient

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>-SARA 302-</th>
<th>-SARA 313------</th>
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<tbody>
<tr>
<td>Acetanilide (103-84-4)</td>
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### Federal, State & International Regulations

| Ingredient | CERCLA | Part 2\-
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<th></th>
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<tr>
<td>Acetanilide (103-84-4)</td>
<td>261.33</td>
<td>8(d)</td>
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</tbody>
</table>

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### Chemical Weapons Convention

- No

### TSCA 12(b)

- No

### SARA 311/312

- Acute: Yes
- Chronic: Yes
- Fire: No
- Pressure: No
- Reactivity: No

### Australian Hazchem Code

- None allocated.

### Australian Poison Schedule

- None allocated.

### WHMIS

- This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. **Other Information**

**NFPA Ratings:**
- Health: 3
- Flammability: 1
- Reactivity: 0

**Label Hazard Warning:**

**WARNING! HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE CYANOSIS.**

**Label Precautions:**
- Avoid contact with eyes, skin and clothing.
- Keep container closed.
- Use only with adequate ventilation.
- Avoid breathing vapor.
- Wash thoroughly after handling.

**Label First Aid:**

- IF INHALED, remove to fresh air. If not breathing, give artificial respiration. DO NOT GIVE MOUTH-TO-MOUTH RESUSCITATION. If breathing is difficult, give oxygen. Keep patient warm and at rest. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In all cases, get medical attention.

**Product Use:**
- Laboratory Reagent.

**Revision Information:**
- MSDS Section(s) changed since last revision of document include: 3.

**Disclaimer:**

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A0302

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