1 - Product and Company Information

Product Name: P-AMINOBENZOIC ACID FREE ACID 99+%
Product Number: A9878
Company: Sigma-Aldrich Pty, Ltd
Unit 2, 14 Anella Avenue
Castle Hill NSW 1765
Technical Phone #: +61 2 9841 0555
Fax: +61 2 9841 0500
Emergency Phone #: +61 2 9841 0566

2 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS #</th>
<th>EC no</th>
<th>Annex I Index Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-AMINO BENZOIC ACID</td>
<td>150-13-0</td>
<td>205-753-0</td>
<td>None</td>
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</tbody>
</table>

Formula: C7H7NO2
Molecular Weight: 137.14 AMU
Synonyms:
- Acido p-aminobenzoico (Italian)
- Amben
- Aminobenzoic acid
- gamma-Aminobenzoic acid
- p-Aminobenzoic acid
- 4-Aminobenzoic acid
- 1-Amino-4-carboxybenzene
- Anti-canmetic vitamin
- Anti-chromotrichia factor
- Bacterial vitamin H1
- Benzoic acid, 4-amin-
- p-Carboxyaniline
- 4-Carboxyaniline
- p-Carboxyphenylamine
- Chromotrichia factor
- Kyselina p-aminobenzoova (Czech)
- PAB
- PABA
- Pabacyd
- Pabafilm
- Pabanol
- Paraminol
- Paranate
- Romavit
- Sunbrella
- Trichochromogenic factor
- Vitamin BX
- Vitamin H'

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

4 - First Aid Measures

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

AFTER SKIN CONTACT
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
AFTER EYE CONTACT
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

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

SPECIAL RISKS
Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, 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.

7 - Handling and Storage

HANDLING
Directions for Safe Handling: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Conditions of Storage: Keep tightly closed.
Store at 2-8°C

SPECIAL REQUIREMENTS: Light sensitive. Air sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory Protection: Government approved respirator.
Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.
9 - Physical and Chemical Properties

Appearance
Color: Faintly beige
Form: Powder

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
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</thead>
<tbody>
<tr>
<td>pH</td>
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<tr>
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<td>MP/MP Range</td>
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<td>Flammability</td>
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<td>Explosion Limits</td>
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<td>Vapor Pressure</td>
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<tr>
<td>Viscosity</td>
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<tr>
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<tr>
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<td>Bulk Density</td>
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<tr>
<td>Decomposition Temp.</td>
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<tr>
<td>Solvent Content</td>
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<tr>
<td>Conductivity</td>
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<td>Miscellaneous Data</td>
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<tr>
<td>Solubility</td>
<td>N/A</td>
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</tr>
</tbody>
</table>

10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions of Instability: May discolor on exposure to light.
Conditions to Avoid: Sensitive to air. Sensitive to light.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: DG1400000

ACUTE TOXICITY

LD50
Oral
Rat
> 6000 mg/kg

LD50
Intraperitoneal
Rat
>3450 MG/KG

LD50
Oral
Mouse
2850 mg/kg

LD50
Oral
Dog
1000 mg/kg

LD50
Oral
Rabbit
1830 mg/kg

LD50
Intravenous
Rabbit
2 GM/KG

SENSITIZATION
Skin: May cause allergic skin reaction.

SIGNS AND SYMPTOMS OF EXPOSURE
The chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed.

IARC CARCINOGEN LIST
Rating: Group 3

CHRONIC EXPOSURE - MUTAGEN

Mouse
1 GM/KG
Intraperitoneal
DNA damage

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 2500 MG/KG
Route of Application: Oral
Exposure Time: (1-22D PREG)
Result: Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

12 - Ecological Information
No data available.
13 - Disposal Considerations

SUBSTANCE DISPOSAL
Contact a licensed professional waste disposal service to dispose of this material. 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.

14 - Transport Information

RID/ADR
Non-hazardous for road transport.

IMDG
Non-hazardous for sea transport.

IATA
Non-hazardous for air transport.

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES
INDICATION OF DANGER: Xn
Harmful.
R-PHRASES: 22 36/37/38 43
Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
S-PHRASES: 26 36
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

COUNTRY SPECIFIC INFORMATION

Germany
WGK: 3

SWITZERLAND
SWISS POISON CLASS: 4

16 - Other Information

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.

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