

## MATERIAL SAFETY DATA SHEET

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Version 1.2

## Section 1 - Product and Company Information

Product Name P-AMINO BENZOIC ACID FREE ACID 99+%

Product Number A9878

Brand SIGMA

Company Sigma-Aldrich Canada, Ltd

Street Address 2149 Winston Park Drive

City, State, Zip, Country Oakville ON L6H 6J8 CA

Technical Phone: 9058299500

Emergency Phone: 800-424-9300

Fax: 9058299292

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
4-AMINO BENZOIC ACID	150-13-0	

Formula C7H7NO2

Synonyms Acido p-aminobenzoico (Italian) \* Amben \* Aminobenzoic acid \* gamma-Aminobenzoic acid \* p-Aminobenzoic acid \* 4-Aminobenzoic acid \* 1-Amino-4-carboxybenzene \* Anticanitic vitamin \* Anti-chromotrichia factor \* Bacterial vitamin H1 \* Benzoic acid, 4-amino- \* 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'

RTECS Number: DG1400000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Harmful.

Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

## HMIS RATING

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

## NFPA RATING

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

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

## Section 4 - First Aid Measures

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#### 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 skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### EYE EXPOSURE

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.

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### Section 5 - Fire Fighting Measures

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#### 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.

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### Section 6 - Accidental Release Measures

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#### PROCEDURE 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.

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### Section 7 - Handling and Storage

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#### HANDLING

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

#### STORAGE

Suitable: Keep tightly closed.  
Store at 2-8°C

## SPECIAL REQUIREMENTS

Light sensitive. Air sensitive.

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## Section 8 - Exposure Controls / PPE

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### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Government approved respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

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## Section 9 - Physical/Chemical Properties

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Appearance	Color: Faintly beige Form: Powder	
Property	Value	At Temperature or Pressure
Molecular Weight	137.14 AMU	
pH	3.5	20 °C Concentration: 5 g/l
BP/BP Range	N/A	
MP/MP Range	186 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	1.374 g/cm <sup>3</sup>	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	Log Kow: 0.68	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

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## Section 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions of Instability: May discolor on exposure to light.

Conditions to Avoid: Light. Air.

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

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### Section 11 - Toxicological Information

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#### 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.

#### 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.

#### TOXICITY DATA

Oral

Rat

> 6000 mg/kg

LD50

Intraperitoneal

Rat

>3450 MG/KG

LD50

Oral

Mouse

2850 mg/kg

LD50

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Muscle weakness.

Oral

Dog

1000 mg/kg

LD50

Oral

Rabbit

1830 mg/kg

LD50

Intravenous

Rabbit

2 GM/KG

LD50

#### IARC CARCINOGEN LIST

Rating: Group 3

CHRONIC EXPOSURE - MUTAGEN

Species: Mouse  
Route: Intraperitoneal  
Dose: 1 GM/KG  
Mutation test: 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).

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Section 12 - Ecological Information

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No data available.

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Section 13 - Disposal Considerations

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APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

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.

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Section 14 - Transport Information

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DOT

Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

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Section 15 - Regulatory Information

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EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 22 36/37/38 43  
Risk Statements: Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.  
S: 26 36  
Safety Statements: 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. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.  
Safety Statements: In case of contact with eyes, rinse

immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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

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Section 16 - Other Information

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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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.