

MATERIAL SAFETY DATA SHEET

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Version 1.7

Section 1 - Product and Company Information

Product Name ANTHRANILIC ACID, REAGENT GRADE, >=98%
Product Number A89855
Brand ALDRICH

Company Sigma-Aldrich
Address 3050 Spruce Street
SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
2-AMINOBENZOIC ACID	118-92-3	No

Formula C7H7NO2
Synonyms o-Aminobenzoic acid * 2-Aminobenzoic acid *
1-Amino-2-carboxybenzene * o-Anthranilic acid *
Benzoic acid, o-amino- * Carboxyaniline *
o-Carboxyaniline * 2-Carboxyaniline * Kyselina
o-aminobenzoova (Czech) * Kyselina anthranilova
(Czech) * NCI-C01730 * Vitamin L * Anthranilic
Acid * 2-AA

RTECS Number: CB2450000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritant.
Irritating to eyes.

HMIS RATING

HEALTH: 2
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING

HEALTH: 2
FLAMMABILITY: 0
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

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.

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

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.

Section 7 - Handling and Storage

HANDLING

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

STORAGE

Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	137.14 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	144.0 - 148.0 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	4.7 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
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	N/A	
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

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

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

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.
Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE

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

TOXICITY DATA

Inhalation

Rat

> 5.3 ppm

LC50

Oral

Rat

5410 mg/kg

LD50

Remarks: Behavioral:Somnolence (general depressed activity).
Behavioral:Excitement. Behavioral:Ataxia.

Oral

Mouse

1400 mg/kg

LD50

Intraperitoneal

Mouse

2500 MG/KG

LD50

Intravenous

Mouse

>500 MG/KG

LD50

Oral

Bird (wild)

750 mg/kg

LD50

IRRITATION DATA

Eyes

Rabbit

Remarks: Moderate irritation effect

Skin

Rabbit

Remarks: No irritation effect

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Species: Rat

Route of Application: Oral

Dose: 16 GM/KG

Exposure Time: 25W

Frequency: C

Result: Kidney, Ureter, Bladder:Tumors. Tumorigenic:Equivocal
tumorigenic agent by RTECS criteria.

Species: Mouse
Route of Application: Subcutaneous
Dose: 1345 MG/KG
Exposure Time: 21D
Frequency: I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Bronchiogenic carcinoma. Liver: Tumors.

Species: Mouse
Route of Application: Subcutaneous
Result: Tumorigenic Effects: Uterine tumors. Liver: Tumors. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

IARC CARCINOGEN LIST

Rating: Group 3

NTP CARCINOGEN LIST

Rating: No evidence.
Species: Mouse/rat
Route: Feed

CHRONIC EXPOSURE - MUTAGEN

Mutation test: Histidine reversion (Ames)

Species: Human
Dose: 1667 MG/L
Cell Type: lymphocyte
Mutation test: Mutation in mammalian somatic cells.

Species: Mouse
Dose: 250 MG/L (+S9)
Cell Type: lymphocyte
Mutation test: Mutation in microorganisms

Species: Mouse
Route: Intraperitoneal
Dose: 600 MG/KG
Mutation test: Sister chromatid exchange

Species: Mouse
Dose: 1266 MG/L
Cell Type: lymphocyte
Mutation test: Mutation in mammalian somatic cells.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Mouse
Dose: 34800 MG/KG
Route of Application: Oral
Exposure Time: (8D MALE/21D PRE)
Result: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated).

Section 12 - Ecological Information

ACUTE ECOTOXICITY TESTS

Test Type: LC50 Fish

Species: Leuciscus idus
Time: 96 h
Value: 230 mg/l

Test Type: LC50 Fish
Species: Pimephales promelas (Fathead minnow)
Time: 96 h
Value: 97 mg/l

Test Type: EC50 Daphnia
Species: Daphnia magna
Time: 48 h
Value: 85.7 mg/l

Test Type: EC50 Algae
Species: Scenedesmus subspicatus
Time: 72 h
Value: 31.3 mg/l

Section 13 - Disposal Considerations

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.

Section 14 - Transport Information

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.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi
Indication of Danger: Irritant.
R: 36
Risk Statements: Irritating to eyes.
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: Irritant.
Risk Statements: Irritating to eyes.
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

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 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.