



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 04/28/2005  
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Version 1.40

### Section 1 - Product and Company Information

**Product Name** 4-(Dimethylamino)benzaldehyde, 99%, A.C.S. reagent  
**Product Number** 156477  
**Brand** Aldrich Chemical  
**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 314 771 5765  
**Fax:** 800 325 5052  
**Emergency Phone:** 414 273 3850 Ext. 5996

### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
4-(DIMETHYLAMINO)BENZALDEHYDE	100-10-7	No	202-819-0	

**Formula** C9H11NO  
**Synonyms** p-(Dimethylamino)benzaldehyde, 4-(Dimethylamino)benzaldehyde, 4-Dimethylaminobenzenecarbonal, Ehrlich's reagent, p-Formyldimethylaniline, Reagens ehrlichovo (Czech)

### Section 3 - Hazards Identification

**HMS Rating**  
Health: 0 Flammability: 1 Reactivity: 0

**NFPA Rating**  
Health: 0 Flammability: 1 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 breathing becomes difficult, call a physician.

**Dermal Exposure**  
In case of contact, immediately wash skin with soap and copious amounts of water.

**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.

### Section 5 - Fire Fighting Measures

**Flash Point:** 352 °F 164 °C

**Autoignition Temp:** 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

**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**  
Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage**  
**Suitable**  
Store under inert gas. Keep tightly closed. Store in a cool dry place.

**Special Requirements**  
Store under inert gas. Light sensitive.

### Section 8 - Exposure Controls / PPE

**Engineering Controls**  
Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment**  
**Respiratory**  
Wear dust mask.  
**Hand**  
Protective gloves.  
**Eye**  
Chemical safety goggles.

**General Hygiene Measures**  
Wash thoroughly after handling.

### Section 9 - Physical/Chemical Properties

Appearance	Color	Form
<b>Physical State</b> Solid	White	Crystals

Aldrich Chemical - 156477  
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Safety and Environmental  
Health

Molecular Weight: 149.19 AMU

Property	Value	At Temperature or Pressure
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pH	N/A	17 mmHg
BP/BP Range	176 °C	
MP/MP Range	72 - 75 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
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	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point °F	352 °F	Method: closed cup
Flash Point °C	164 °C	Method: closed cup
Explosion Limits	N/A	

Flammability N/A  
Autoignition Temp N/A  
Solubility  
Solubility In Water: Slightly.

N/A = not available

## Section 10 - Stability and Reactivity

Stability  
Stable  
Stable.  
Conditions of Instability  
May discolor on exposure to light.  
Materials to Avoid  
Strong bases.

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  
May cause eye irritation.  
Inhalation  
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

### 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.

RTECS Number: CU5775000

### Toxicity Data

Oral - Rat: > 6,400 mg/kg(LD50)

Intraperitoneal - Rat: 620 MG/KG (LD50)

Oral - Mouse: 800 mg/kg (LD50)

Remarks: Behavioral:General anesthetic.

Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

Intraperitoneal - Mouse: 200 MG/KG (LD50)

Remarks: Behavioral:General anesthetic.

Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

### Irritation Data

Skin - Rabbit:

Remarks: No irritation effect

Eyes - Rabbit:

Remarks: No irritation effect

## Section 12 - Ecological Information

No data available.

### Elimination

## 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

### 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.

