

## MATERIAL SAFETY DATA SHEET

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Version 1.3

## Section 1 - Product and Company Information

Product Name N-METHYLANILINE, 99+%  
Product Number 236233  
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 No
N-METHYLANILINE	100-61-8	No

Formula C7H9N  
Synonyms Anilinomethane \* Benzenamine, N-methyl- (9CI) \*  
(Methylamino)benzene \* N-Methylaminobenzene \*  
Methylaniline \* N-Methylaniline (ACGIH) \*  
N-Methylbenzenamine \* Methylphenylamine \*  
N-Methylphenylamine \* Monomethylaniline \*  
N-Monomethylaniline \* Monomethyl aniline (OSHA) \*  
N-Phenylmethylamine

RTECS Number: BY4550000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Toxic.

Toxic by inhalation, in contact with skin and if swallowed.

Irritating to eyes, respiratory system and skin.

Combustible. Readily absorbed through skin.

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

## Section 4 - First Aid Measures

## INHALATION EXPOSURE

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

## EYE EXPOSURE

Assure adequate flushing of the eyes by separating the eyelids with fingers.

## Section 5 - Fire Fighting Measures

## FLASH POINT

185 °F 85 °C Method: closed cup

AUTOIGNITION TEMP  
500 °C

FLAMMABILITY  
N/A

EXTINGUISHING MEDIA

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

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.

EXPOSURE HAZARD(S)

Material: Irritant. Harmful liquid. Toxic.

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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 self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal.

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Section 7 - Handling and Storage

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HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Keep away from heat and open flame. Store in a cool dry place.

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Section 8 - Exposure Controls / PPE

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ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

EXPOSURE LIMITS, RTECS

Country	Source	Type	Value
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USA ACGIH TWA 0.5 PPM  
 Remarks: Skin  
 USA MSHA Standard-air TWA 2 PPM (9 MG/M3) (SKIN)  
 USA OSHA PEL 8H TWA 2 PPM (9 MG/M3) (SKIN)  
 New Zealand OEL  
 Remarks: check ACGIH TLV  
 USA NIOSH TWA 0.5 PPM (SK)

EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	2 MG/M3
Poland		NDSCh	-
Poland		NDSP	-

Section 9 - Physical/Chemical Properties

Appearance Color: Light yellow-green  
 Form: Clear liquid

Property	Value	At Temperature or Pressure
Molecular Weight	107.16 AMU	
pH	7.6	Concentration: 1 g/l
BP/BP Range	192.0 - 197.0 °C	
MP/MP Range	- 57.0 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	0.985 g/cm3	
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	185 °F 85 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	500 °C	
Refractive Index	1.571	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	Solubility in Water:30 mg/ml H2O	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Materials to Avoid: Strong oxidizing agents Carbon dioxide.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and nitrogen oxides.

Section 11 - Toxicological Information

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#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Multiple Routes: Harmful if swallowed, inhaled, or absorbed through skin. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

#### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

#### IRRITATION DATA

Skin

Rabbit

4 H

Remarks: No irritation effect

Eyes

Rabbit

Remarks: Moderate irritation effect

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### Section 12 - Ecological Information

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#### ACUTE ECOTOXICITY TESTS

Test Type: EC50 Algae

Time: 96 h

Value: 44 mg/l

Test Type: EC50 Daphnia

Species: Daphnia magna

Time: 48 h

Value: 0.2 mg/l

Test Type: LC50 Fish

Species: Pimephales promelas (Fathead minnow)

Time: 96 h

Value: 100 mg/l

Test Type: LC50 Fish

Time: 48 h

Value: 55 mg/l

#### ELIMINATION

Elimination: > 90 %

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### Section 13 - Disposal Considerations

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#### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

This combustible material may be burned 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: n-Methylaniline

UN#: 2294  
Class: 6.1  
Packing Group: Packing Group III  
Hazard Label: Toxic Substance  
PIH: Not PIH

#### IATA

Proper Shipping Name: n-Methylaniline  
IATA UN Number: 2294  
Hazard Class: 6.1  
Packing Group: III

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#### Section 15 - Regulatory Information

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##### EU DIRECTIVES CLASSIFICATION

Symbol of Danger: T-N  
Indication of Danger: Toxic. Dangerous for the environment.  
R: 23/24/25-33-50/53  
Risk Statements: Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S: 28-36/37-45-60-61  
Safety Statements: After contact with skin, wash immediately with plenty of soap-suds. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

##### US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Toxic.  
Risk Statements: Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.  
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wear suitable protective clothing, gloves, and eye/face protection.  
US Statements: Combustible. Readily absorbed through skin.

##### 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

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