

## SAFETY DATA SHEET

Version 4.5  
Revision Date 07/03/2014  
Print Date 12/17/2014

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**1. PRODUCT AND COMPANY IDENTIFICATION****1.1 Product identifiers**

Product name : *N*-Methylaniline

Product Number : M29304  
Brand : Aldrich  
Index-No. : 612-015-00-5

CAS-No. : 100-61-8

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052

**1.4 Emergency telephone number**

Emergency Phone # : (314) 776-6555

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**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 4), H227  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 3), H311  
Eye irritation (Category 2A), H319  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Danger

Hazard statement(s)

H227 Combustible liquid  
H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled  
H319 Causes serious eye irritation.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

|                    |  |
|--------------------|--|
| P264               | Wash skin thoroughly after handling.   |
| P270               | Do not eat, drink or smoke when using this product.  |
| P271               | Use only outdoors or in a well-ventilated area.  |
| P273               | Avoid release to the environment.  |
| P280               | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| P301 + P310        | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.   |
| P302 + P352        | IF ON SKIN: Wash with plenty of soap and water.  |
| P304 + P340        | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.                                 |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312               | Call a POISON CENTER or doctor/ physician if you feel unwell.  |
| P322               | Specific measures (see supplemental first aid instructions on this label).   |
| P330               | Rinse mouth.   |
| P337 + P313        | If eye irritation persists: Get medical advice/ attention.   |
| P361               | Remove/ Take off immediately all contaminated clothing.  |
| P363               | Wash contaminated clothing before reuse.   |
| P370 + P378        | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  |
| P391               | Collect spillage.  |
| P403 + P233        | Store in a well-ventilated place. Keep container tightly closed.   |
| P403 + P235        | Store in a well-ventilated place. Keep cool.   |
| P405               | Store locked up.   |
| P501               | Dispose of contents/ container to an approved waste disposal plant.  |

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

|                  |                                   |
|------------------|-----------------------------------|
| Synonyms         | : Monomethylaniline               |
| Formula          | : C <sub>7</sub> H <sub>9</sub> N |
| Molecular Weight | : 107.15 g/mol                    |
| CAS-No.          | : 100-61-8                        |
| EC-No.           | : 202-870-9                       |
| Index-No.        | : 612-015-00-5                    |

#### Hazardous components

| Component              | Classification  | Concentration |
|------------------------|---|---------------|
| <b>N-Methylaniline</b> | Flam. Liq. 4; Acute Tox. 3; Eye Irrit. 2A; Aquatic Acute 1; Aquatic Chronic 1; H227, H301 + H311 + H331, H319, H410 | -             |

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**

no data available

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**5. FIREFIGHTING MEASURES****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides, nitrogen oxides (NOx)

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

Use water spray to cool unopened containers.

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**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.

Vapours can accumulate in low areas.

For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

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**7. HANDLING AND STORAGE****7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

**Components with workplace control parameters**

| Component       | CAS-No.  | Value  | Control parameters | Basis  |
|-----------------|----------|--|--------------------|--|
| N-Methylaniline | 100-61-8 | TWA  | 0.5 ppm            | USA. ACGIH Threshold Limit Values (TLV)  |
|                 | Remarks  | Central Nervous System impairment<br>Methemoglobinemia<br>Substances for which there is a Biological Exposure Index or Indices (see BEI® section), see BEI® for Methemoglobin Inducers<br>Danger of cutaneous absorption |                    |  |
|                 |          | TWA  | 0.5 ppm<br>2 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000                    |
|                 |          | Skin notation  |                    |  |
|                 |          | TWA  | 2 ppm<br>9 mg/m3   | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
|                 |          | Skin designation<br>The value in mg/m3 is approximate.   |                    |  |
|                 |          | TWA  | 0.5 ppm<br>2 mg/m3 | USA. NIOSH Recommended Exposure Limits   |
|                 |          | Potential for dermal absorption  |                    |  |

## 8.2 Exposure controls

### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Full contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

#### Splash contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 30 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: clear, liquid<br>Colour: light yellow |
| b) Odour  | no data available                           |
| c) Odour Threshold                              | no data available                           |
| d) pH   | 7.6 at 1 g/l                                |
| e) Melting point/freezing point                 | Melting point/range: -57 °C (-71 °F) - lit. |
| f) Initial boiling point and boiling range      | 196 °C (385 °F) - lit.                      |
| g) Flash point                                  | 85 °C (185 °F) - closed cup                 |
| h) Evaporation rate                             | no data available                           |
| i) Flammability (solid, gas)                    | no data available                           |
| j) Upper/lower flammability or explosive limits | no data available                           |
| k) Vapour pressure                              | no data available                           |
| l) Vapour density                               | no data available                           |
| m) Relative density                             | 0.989 g/cm <sup>3</sup> at 25 °C (77 °F)    |
| n) Water solubility                             | ca.30 g/l                                   |
| o) Partition coefficient: n-octanol/water       | no data available                           |
| p) Auto-ignition temperature                    | no data available                           |
| q) Decomposition temperature                    | no data available                           |
| r) Viscosity                                    | no data available                           |
| s) Explosive properties                         | no data available                           |
| t) Oxidizing properties                         | no data available                           |

### 9.2 Other safety information

no data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents, Carbon dioxide (CO<sub>2</sub>)

## 10.6 Hazardous decomposition products

Other decomposition products - no data available  
In the event of fire: see section 5

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

no data available

no data available

#### Skin corrosion/irritation

Skin - rabbit

Result: No skin irritation - 4 h

#### Serious eye damage/eye irritation

Eyes - rabbit

Result: Moderate eye irritation

#### Respiratory or skin sensitisation

no data available

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Reproductive toxicity

no data available

no data available

#### Specific target organ toxicity - single exposure

no data available

#### Specific target organ toxicity - repeated exposure

no data available

#### Aspiration hazard

no data available

#### Additional Information

RTECS: BY4550000

Cough, Shortness of breath, Headache, Nausea, Vomiting, 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., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.2 mg/l - 48 h

### 12.2 Persistence and degradability

Biodegradability                      Biotic/Aerobic  
Result: - Not readily biodegradable.

### 12.3 Bioaccumulative potential

Bioaccumulation                      Cyprinodontidae - 48 h  
   - 250 µg/l

Bioconcentration factor (BCF): 2.6

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 2294                      Class: 6.1                                      Packing group: III  
Proper shipping name: N-Methylaniline  
Marine pollutant: No  
Poison Inhalation Hazard: No

### IMDG

UN number: 2294                      Class: 6.1                                      Packing group: III                                      EMS-No: F-A, S-A  
Proper shipping name: N-METHYLANILINE  
Marine pollutant: No

### IATA

UN number: 2294                      Class: 6.1                                      Packing group: III  
Proper shipping name: N-Methylaniline

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## 15. REGULATORY INFORMATION

### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

### Massachusetts Right To Know Components

|                 |                     |                             |
|-----------------|---------------------|-----------------------------|
| N-Methylaniline | CAS-No.<br>100-61-8 | Revision Date<br>1993-04-24 |
|-----------------|---------------------|-----------------------------|

### Pennsylvania Right To Know Components

|  |         |               |
|--|---------|---------------|
|  | CAS-No. | Revision Date |
|--|---------|---------------|

N-Methylaniline 100-61-8 1993-04-24

### New Jersey Right To Know Components

|                 | CAS-No.  | Revision Date |
|-----------------|----------|---------------|
| N-Methylaniline | 100-61-8 | 1993-04-24    |

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## 16. OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3.

|                    |  |
|--------------------|--|
| Acute Tox.         | Acute toxicity   |
| Aquatic Acute      | Acute aquatic toxicity                                 |
| Aquatic Chronic    | Chronic aquatic toxicity                               |
| Eye Irrit.         | Eye irritation   |
| Flam. Liq.         | Flammable liquids                                      |
| H227               | Combustible liquid                                     |
| H301               | Toxic if swallowed.                                    |
| H301 + H311 + H331 | Toxic if swallowed, in contact with skin or if inhaled |

### HMIS Rating

|                        |   |
|------------------------|---|
| Health hazard:         | 4 |
| Chronic Health Hazard: |   |
| Flammability:          | 2 |
| Physical Hazard        | 0 |

### NFPA Rating

|                    |   |
|--------------------|---|
| Health hazard:     | 4 |
| Fire Hazard:       | 2 |
| Reactivity Hazard: | 0 |

### Further information

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### Preparation Information

Sigma-Aldrich Corporation  
Product Safety – Americas Region  
1-800-521-8956

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