



# MATERIAL SAFETY DATA SHEET

according to the Global Harmonized System

Date of issue: 10/21/2012

Version 1.0

## SECTION 1. Identification

### Product identifier

Product number 803057  
Product name 4-(Dimethylamino)benzaldehyde for synthesis

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses Chemical for synthesis

### Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821,  
United States of America | SDS Phone Support: +1-978-715-1335 |  
General Inquiries: +1-978-751-4321 | Monday to Friday, 9:00 AM to  
4:00 PM Eastern Time (GMT-5)  
  
e-mail: mm\_sds@merckgroup.com

Emergency telephone 613-996-6666 CANUTEC (Canada)  
+1-703-527-3887 CHEMTREC (International)  
24 Hours/day; 7 Days/week

## SECTION 2. Hazards identification

### GHS-Labeling

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Formula 4-[(CH<sub>3</sub>)<sub>2</sub>N]C<sub>6</sub>H<sub>4</sub>CHO C<sub>9</sub>H<sub>11</sub>NO (Hill)  
CAS-No. 100-10-7  
Molar mass 149.19 g/mol

Remarks WHMIS hazardous composition: No ingredients are hazardous according to the CPR criteria.

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**SECTION 4. First aid measures**

**Description of first-aid measures**

*Inhalation*

After inhalation: fresh air.

*Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing.

*Eye contact*

After eye contact: rinse out with plenty of water.

*Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

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

CNS disorders

The following applies to aromatic amines in general: systemic effect: methemoglobinemia with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea, and spasms, principal symptom: cyanosis (blue discoloration of the blood).

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

No information available.

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**SECTION 5. Fire-fighting measures**

**Extinguishing media**

*Suitable extinguishing media*

Water, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible.

Development of hazardous combustion gases or vapors possible in the event of fire.

Fire may cause evolution of:

nitrogen oxides

**Advice for firefighters**

*Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

*Further information*

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

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Advice for emergency responders: Protective equipment see section 8.

**Environmental precautions**

Do not empty into drains.

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

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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**SECTION 7. Handling and storage**

**Precautions for safe handling**

Observe label precautions.

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

Protected from light. Tightly closed. Dry.

Store at +15°C to +25°C (+59°F to +77°F).

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**SECTION 8. Exposure controls/personal protection**

**Exposure limit(s)**

Contains no substances with occupational exposure limit values.

**Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

**Individual protection measures**

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

*Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

*Eye/face protection*

Safety glasses

*Hand protection*

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended:

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

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*Respiratory protection*

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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**SECTION 9. Physical and chemical properties**

Physical state	solid
Color	yellow
Odor	characteristic
Odor Threshold	No information available.
pH	No information available.
Melting point	162 - 167 °F (72 - 75 °C)
Boiling point/boiling range	349 - 351 °F (176 - 177 °C) at 23 hPa
Flash point	> 212 °F (> 100 °C)
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Relative density	No information available.
Water solubility	0.3 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	log Pow: 1.81 (experimental) (Lit.) Bioaccumulation is not expected (log Pow <1).
Autoignition temperature	No information available.
Decomposition temperature	No information available.

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Viscosity, dynamic No information available.  
Ignition temperature 833 °F (445 °C)  
Bulk density ca.350 kg/m<sup>3</sup>

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**SECTION 10. Stability and reactivity**

**Reactivity**

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

**Chemical stability**

Sensitivity to light

**Possibility of hazardous reactions**

Violent reactions possible with:  
Strong oxidizing agents, Bases

**Conditions to avoid**

no information available

**Incompatible materials**

no information available

**Hazardous decomposition products**

in the event of fire: See section 5.

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**SECTION 11. Toxicological information**

**Information on toxicological effects**

*Likely route of exposure*

Eye contact, Skin contact, Ingestion

*Acute oral toxicity*

LD50 rat: > 6,400 mg/kg (External MSDS)

*Skin irritation*

rabbit

Result: No irritation  
(External MSDS)

*Eye irritation*

rabbit

Result: No eye irritation  
(External MSDS)

*Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

*Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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*Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

**Carcinogenicity**

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Further information**

Further toxicological data:

Property that cannot be excluded on the basis of structure- effect considerations:

After absorption of large quantities:

CNS disorders

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Other information

The following applies to aromatic amines in general: systemic effect: methemoglobinemia with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea, and spasms, principal symptom: cyanosis (blue discoloration of the blood).

Further data:

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12. Ecological information**

**Ecotoxicity**

*Toxicity to fish*

LC50 Pimephales promelas (fathead minnow): 45.7 mg/l; 96 h (External MSDS)

**Persistence and degradability**

*Biodegradability*

> 70 %; 28 d

OECD Test Guideline 301E

Readily biodegradable.

**Bioaccumulative potential**

*Partition coefficient: n-octanol/water*

log Pow: 1.81

(experimental)

(Lit.) Bioaccumulation is not expected (log Pow <1).

**Mobility in soil**

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No information available.

**Other adverse effects**

*Additional ecological information*

Discharge into the environment must be avoided.

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**SECTION 13. Disposal considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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**SECTION 14. Transport information**

**Land transport (DOT)**

Not classified as dangerous in the meaning of transport regulations.

**Air transport (IATA)**

Not classified as dangerous in the meaning of transport regulations.

**Sea transport (IMDG)**

Not classified as dangerous in the meaning of transport regulations.

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**SECTION 15. Regulatory information**

**United States of America**

**TSCA list**

Not relevant

**Canada**

**WHMIS Classification**

Not controlled under WHIMS (Canada).

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

**Notification status**

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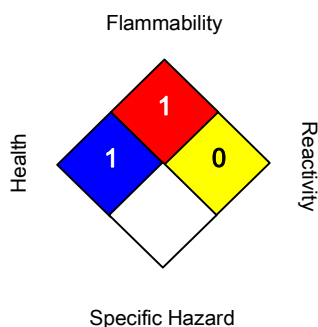
TSCA: On TSCA Inventory

DSL: All components of this product are on the Canadian DSL.

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**SECTION 16. Other information**

**National Fire Protection Association (U.S.A)**



**Training advice**

Provide adequate information, instruction and training for operators.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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