# **Material Safety Data Sheet**

Version 4.0 Revision Date 07/24/2010 Print Date 12/07/2010

# 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 4-Methoxy-2-nitroaniline

Product Number : M17403 Brand : Aldrich

Company : Sigma-Aldrich

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USA

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# 2. HAZARDS IDENTIFICATION

# **Emergency Overview**

### **OSHA Hazards**

Target Organ Effect, Highly toxic by inhalation, Highly toxic by skin absorption

# **Target Organs**

Blood

# GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H300 + H310 Fatal if swallowed or in contact with skin.

H330 Fatal if inhaled. H402 Harmful to aquatic life.

Precautionary statement(s)

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/ protective clothing.

P284 Wear respiratory protection.

P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.
P310 Immediately call a POISON CENTER or doctor/ physician.

**HMIS Classification** 

Health hazard: 4
Chronic Health Hazard: \*
Flammability: 0
Physical hazards: 0

**NFPA Rating** 

Health hazard: 4
Fire: 0
Reactivity Hazard: 0

# **Potential Health Effects**

**Inhalation** May be fatal if inhaled. May cause respiratory tract irritation.

**Skin** May be fatal if absorbed through skin. May cause skin irritation.

**Eyes**May cause eye irritation. **Ingestion**May be harmful if swallowed.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 4-Amino-3-nitroanisole

2-Nitro-p-anisidine

Formula :  $C_7H_8N_2O_3$ Molecular Weight : 168.15 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
4-Methoxy-2-nitroaniline			
96-96-8	202-547-2	612-038-00-0	-

# 4. 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

Flush eyes with water as a precaution.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

# 5. FIRE-FIGHTING MEASURES

# Suitable extinguishing media

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

# Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

# 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

# **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.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

# 7. HANDLING AND STORAGE

# Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

# Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

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# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

# Personal protective equipment

# Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

# **Hand 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.

# Eye 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 and 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.

# Hygiene measures

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# **Appearance**

Form powder

# Safety data

pH no data available

Melting point 123 - 126 °C (253 - 259 °F) - lit.

Boiling point no data available
Flash point no data available
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

# 10. STABILITY AND REACTIVITY

# Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents

# Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx)

# 11. TOXICOLOGICAL INFORMATION

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# Acute toxicity Skin corrosion/irritation

no data available

# Serious eye damage/eye irritation

no data available

# Respiratory or skin sensitization

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

# Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

# Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

# **Aspiration hazard**

no data available

### Potential health effects

**Inhalation** May be fatal if inhaled. May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be fatal if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

# Signs and Symptoms of Exposure

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.

### Additional Information

RTECS: BY4415000

# 12. ECOLOGICAL INFORMATION

# **Toxicity**

no data available

# Persistence and degradability

no data available

# Bioaccumulative potential

no data available

# Mobility in soil

no data available

# PBT and vPvB assessment

no data available

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### Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

# 13. DISPOSAL CONSIDERATIONS

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

# Contaminated packaging

Dispose of as unused product.

# 14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 2811 Class: 6.1 Packing group: II

Proper shipping name: Toxic solids, organic, n.o.s. (4-Methoxy-2-nitroaniline)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG** 

UN-Number: 2811 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (4-Methoxy-2-nitroaniline)

Marine pollutant: No

**IATA** 

UN-Number: 2811 Class: 6.1 Packing group: II

Proper shipping name: Toxic solid, organic, n.o.s. (4-Methoxy-2-nitroaniline)

# 15. REGULATORY INFORMATION

# **OSHA Hazards**

Target Organ Effect, Highly toxic by inhalation, Highly toxic by skin absorption

# **DSL Status**

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

# **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

Acute Health Hazard, Chronic Health Hazard

# **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

# Pennsylvania Right To Know Components

4-Methoxy-2-nitroaniline CAS-No. Revision Date 96-96-8

# **New Jersey Right To Know Components**

4-Methoxy-2-nitroaniline CAS-No. Revision Date

# 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.

# **16. OTHER INFORMATION**

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# **Further information**

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