

## Material Safety Data Sheet

Version 4.1

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : o-Anisidine

Product Number : A88182

Brand : Aldrich

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

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

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2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Carcinogen, Target Organ Effect, Highly toxic by inhalation, Harmful by ingestion., Toxic by skin absorption, Skin and respiratory sensitizer

## Target Organs

Blood

## GHS Classification

Acute toxicity, Oral (Category 4)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Respiratory sensitization (Category 1)  
Skin sensitization (Category 1)  
Germ cell mutagenicity (Category 2)  
Carcinogenicity (Category 1B)  
Acute aquatic toxicity (Category 2)

## GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed.
H311 + H331	Toxic in contact with skin or if inhaled
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H401	Toxic to aquatic life.

Precautionary statement(s)

P201 Obtain special instructions before use.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/ protective clothing.  
P311 Call a POISON CENTER or doctor/ physician.

**HMIS Classification**

**Health hazard:** 4  
**Chronic Health Hazard:** \*  
**Flammability:** 1  
**Physical hazards:** 0

**NFPA Rating**

**Health hazard:** 4  
**Fire:** 1  
**Reactivity Hazard:** 0

**Potential Health Effects**

**Inhalation** May be fatal if inhaled. May cause respiratory tract irritation.  
**Skin** Toxic if absorbed through skin. May cause skin irritation.  
**Eyes** May cause eye irritation.  
**Ingestion** Harmful if swallowed.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms : 2-Aminoanisole  
2-Methoxyaniline

Formula : C<sub>7</sub>H<sub>9</sub>NO  
Molecular Weight : 123.15 g/mol

Component		Concentration
<b>2-Methoxyaniline</b>		
CAS-No.	90-04-0	-
EC-No.	201-963-1	
Index-No.	612-035-00-4	

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**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.

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**5. FIREFIGHTING MEASURES**

**Conditions of flammability**

Not flammable or combustible.

**Suitable extinguishing media**

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

**Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Hazardous combustion products**

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

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

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

**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**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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

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

**Conditions for safe storage**

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.

Light sensitive. Store under inert gas.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Basis
2-Methoxyaniline	90-04-0	TWA	0.5 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.5 mg/m3	USA. NIOSH Recommended Exposure Limits
Remarks	Potential Occupational Carcinogen o-Anisidine has been used as a basis for many dyes. See Appendix A Potential for dermal absorption			
		TWA	0.5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Methemoglobinemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section), see BEI® for Methemoglobin Inducers Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption			

**Personal protective equipment****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).

**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.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	liquid
Colour	no data available

**Safety data**

pH	no data available
Melting point/freezing point	Melting point/range: 3 - 6 °C (37 - 43 °F) - lit.
Boiling point	225 °C (437 °F) - lit.
Flash point	100 °C (212 °F) - closed cup
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	1.092 g/cm <sup>3</sup> at 25 °C (77 °F)
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

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**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

no data available

**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 (NO<sub>x</sub>)  
Other decomposition products - no data available

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**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity****Oral LD50**

LD50 Oral - rat - 1,150 mg/kg

**Inhalation LC50****Dermal LD50****Other information on acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

May cause allergic respiratory and skin reactions

**Germ cell mutagenicity**

In vitro tests showed mutagenic effects

**Carcinogenicity**

This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

Possible human carcinogen

IARC: 2B - Group 2B: Possibly carcinogenic to humans (2-Methoxyaniline)

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

**Teratogenicity**

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**

<b>Inhalation</b>	May be fatal if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	Harmful if swallowed.
<b>Skin</b>	Toxic if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., May cause cyanosis.

### Synergistic effects

no data available

### Additional Information

RTECS: BZ5410000

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## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 6.8 mg/l - 48 h
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### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

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

Toxic to aquatic life.

no data available

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## 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.

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## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 2431	Class: 6.1	Packing group: III
Proper shipping name: Anisidines		
Reportable Quantity (RQ): 100 lbs		
Marine pollutant: No		
Poison Inhalation Hazard: No		

### IMDG

UN number: 2431	Class: 6.1	Packing group: III	EMS-No: F-A, S-A
Proper shipping name: ortho-ANISIDINE			
Marine pollutant: No			

### IATA

UN number: 2431	Class: 6.1	Packing group: III
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Proper shipping name: Anisidines

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## 15. REGULATORY INFORMATION

### OSHA Hazards

Carcinogen, Target Organ Effect, Highly toxic by inhalation, Harmful by ingestion., Toxic by skin absorption, Skin and respiratory sensitizer

### 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

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
2-Methoxyaniline	90-04-0	2007-07-01

### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right To Know Components

	CAS-No.	Revision Date
2-Methoxyaniline	90-04-0	2007-07-01

### Pennsylvania Right To Know Components

	CAS-No.	Revision Date
2-Methoxyaniline	90-04-0	2007-07-01

### New Jersey Right To Know Components

	CAS-No.	Revision Date
2-Methoxyaniline	90-04-0	2007-07-01

### California Prop. 65 Components

	CAS-No.	Revision Date
WARNING! This product contains a chemical known to the State of California to cause cancer.	90-04-0	2007-09-28

2-Methoxyaniline

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## 16. OTHER INFORMATION

### Further information

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