



## MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**  
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o-Anisidine, 99+%

### SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:  
o-Anisidine, 99+%

Catalog Numbers:  
10481-0000, 10481-0010, 10481-0050, 10481-2500

Synonyms:  
2-Methoxyaniline

Company Information:  
LEONID CHEMICALS  
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb  
Ashokpuram School Road  
Bangalore-560 022, Karnataka, INDIA  
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	90-04-0
Chemical Name	:	o-Anisidine
%	:	99+%
EINECS#	:	201-963-1
Hazard Symbols	:	T
Risk Phrases	:	23/24/25 45 68

### SECTION 3- HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

Toxic by inhalation, in contact with skin and if swallowed. May cause cancer. Possible risk of irreversible effects. Light sensitive.

#### Potential Health Effects

Eye:  
Vapors may cause eye irritation. Causes redness and pain.

Skin:  
May cause skin irritation. Causes symptoms similar to those of inhalation. Causes redness and pain. Toxic in contact with skin. May cause allergic contact dermatitis. Substance is readily absorbed through the skin.



#### Ingestion:

May cause irritation of the digestive tract. May cause effects similar to those for inhalation exposure. May cause nausea and vomiting. Toxic if swallowed.

#### Inhalation:

May cause cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Inhalation of vapor may cause respiratory tract irritation. Toxic if inhaled. Methemoglobinemia is characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown blood. May cause nausea, dizziness, and headache. Inhalation of vapors will cause coughing or breathing difficulty.

#### Chronic:

Prolonged or repeated skin contact may cause dermatitis. Prolonged exposure may cause anemia and methemoglobinemia, characterized by dizziness, drowsiness, headache, breath shortness, cyanosis (bluish skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown colored blood. May cause kidney injury. May cause cancer in humans.

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## SECTION 4 - FIRST AID MEASURES

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#### Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

#### Skin:

Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

#### Ingestion:

Get medical aid. Wash mouth out with water.

#### Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

#### Notes to Physician:

Treat symptomatically and supportively.

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## SECTION 5- FIRE FIGHTING MEASURES

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#### General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

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General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

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SECTION 7 - HANDLING AND STORAGE

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Handling:

Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage:

Store in a cool, dry place. Store in a tightly closed container. Store protected from light.

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SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

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Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Physical State	:	Liquid
Color	:	Clear colorless to light yellow
Odor	:	Characteristic odor

PH	:	7 (sat.sol., 20°C)
Vapor Pressure	:	1.3 mbar @ 20 deg C
Viscosity	:	Information not available.
Boiling Point	:	225 deg C @ 760 mmHg
Freezing/Melting Point	:	3 - 6 deg C
Autoignition Temperature	:	437 deg C ( 818.60 deg F)
Flash Point	:	107 deg C ( 224.60 deg F)
Explosion Limits, lower	:	Information not available.
Explosion Limits, upper	:	Information not available.
Decomposition Temperature	:	>300 deg C
Solubility in water	:	1.3 g/100ml in water (20°C)
Specific Gravity/Density	:	1.0920g/cm <sup>3</sup>
Molecular Formula	:	C <sub>7</sub> H <sub>9</sub> NO
Molecular Weight	:	123.15

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## SECTION 10 - STABILITY AND REACTIVITY

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### Chemical Stability:

Stable under normal temperatures and pressures. May discolor on exposure to air.

### Conditions to Avoid:

Incompatible materials, light, heat.

### Incompatibilities with Other Materials:

Oxidizing agents, acids, rubber.

### Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, carbon dioxide.

### Hazardous Polymerization:

Will not occur.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

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### RTECS#:

CAS# 90-04-0: BZ5410000

### LD50/LC50:

CAS# 90-04-0: Oral, mouse: LD50 = 1400 mg/kg; Oral, rabbit: LD50 = 870 mg/kg; Oral, rat: LD50 = 1150 mg/kg. Not available.

Carcinogenicity:

o-Anisidine -

ACGIH : A3 - Animal Carcinogen  
California : Carcinogen; initial date 7/1/87  
NIOSH : Potential occupational carcinogen  
OSHA : Possible Select carcinogen  
IARC : Group 2B carcinogen

See actual entry in RTECS for complete information.

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SECTION 12 - ECOLOGICAL INFORMATION

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Ecotoxicity:

Fish: *Leuciscus idus*: LC0 = 200 mg/l; 72 H; .log POW : 0.95 - 1.2

Other

\Avoid entering into waters or underground water. Do not empty into drains.

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SECTION 13 - DISPOSAL CONSIDERATIONS

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Dispose of in a manner consistent with federal, state, and local regulations.

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SECTION 14 - TRANSPORT INFORMATION

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IATA

Shipping Name : ANISIDINES, LIQUID  
Hazard Class : 6.1  
UN Number : 2431  
Packing Group : III

IMO

Shipping Name : ANISIDINES, LIQUID  
Hazard Class : 6.1  
UN Number : 2431  
Packing Group : III

RID/ADR

Shipping Name : ANISIDINES, LIQUID  
Hazard Class : 6.1  
UN Number : 2431  
Packing Group : III

USA RQ: CAS# 90-04-0: 100 lb final RQ; 45.4 kg final RQ

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## SECTION 15 - REGULATORY INFORMATION

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European/International Regulations  
European Labeling in Accordance with EC Directives

Hazard Symbols:

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Risk Phrases:

R 45 May cause cancer.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R 68 Possible risk of irreversible effects.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 90-04-0: 3

United Kingdom Occupational Exposure Limits

CAS# 90-04-0: OES-United Kingdom, TWA 0.1 ppm TWA; 0.51 mg/m<sup>3</sup> TWA

United Kingdom Maximum Exposure Limits

No information available.

Canada

CAS# 90-04-0 is listed on Canada's DSL List.

CAS# 90-04-0 is listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 90-04-0: OEL-AUSTRALIA:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-AUSTRIA:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-BELGIUM:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-DENMARK:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-FINLAND:TWA 0.5 mg/m<sup>3</sup>;STEL 1.5 mg/m<sup>3</sup>;Skin;CAR

OEL-FRANCE:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin;Carcinoge

OEL-GERMANY:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-INDIA:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-THE NETHERLANDS:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL-THE PHILIPPINES:TWA 0.5 mg/m<sup>3</sup>;Skin OEL-RUSSIA:STEL 1 mg/m<sup>3</sup>;Skin

OEL-SWITZERLAND:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);STEL 0.2 ppm;Skin

OEL-UNITED KINGDOM:TWA 0.1 ppm (0.5 mg/m<sup>3</sup>);Skin

OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

US FEDERAL

TSCA

CAS# 90-04-0 is listed on the TSCA inventory.

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## SECTION 16 - ADDITIONAL INFORMATION

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The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

