

Material Safety Data Sheet	o-Toluidine
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1 Product And Company Identification :

Product Name	: o-Toluidine
Other/Generic Names	: 1-amino-2-methylbenzene, 2-amino-1-methylbenzene, 2-aminotoluene, o-aminotoluene, 2-methylaniline, o-methylaniline, 1-methyl-2-aminobenzene, 2-methyl-1-aminobenzene, o-methylbenzenamine, 2-toluidine, o-tolylamine, CI 37077
CAS No.	: 95-53-4
Product use	: It is useful as an intermediate for pigment, dyestuffs, photographic chemicals, antioxidants, agricultural, pharmaceutical and rubber chemicals.
Supplier	Deepak Nitrite Ltd. Aaditya-I, National Highway No. 8, Chhani Road, Vadodara - 390 024, India Manufacturing facilities at : Vadodara, Roha, Taloja & Hyderabad. Contact no. : +91-9904406400
For Chemical Emergency	Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887

2 Hazard Identification :

GHS classification (Classification according to Regulation (EC) No 1272/2008)	Hazard statement (s)
Health Hazards : 4	H227 Combustible liquid. H302 Harmful if swallowed.
Flammability: 2	H313 May be harmful in contact with skin.
Physical hazards: 0	H316 Causes mild skin irritation. H318 Causes serious eye damage. H331 Toxic if inhaled. H350 May cause cancer. H400 Very toxic to aquatic life.

**EC classification
(Classification according to
Directive 67/548/EEC)**

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T: R23/24/25
Xi; R36
Carc.Cat.3; R40
R45
N: R50
Acute aquatic toxicity

Toxic by inhalation, in contact with skin and if swallowed
Irritating to eyes.
Limited evidence of a carcinogenic effect.
May cause sensitization by skin contact.
May cause cancer
Very toxic to aquatic organisms.

Hazard pictograms



Signal word

Danger

3 Composition / Information On Ingredients :

Chemical formula : C₇H₉N
Common Name : o-Toluidine
Synonyms : 1-amino-2-methylbenzene,
2-amino-1-methylbenzene,
2-aminotoluene,
o-aminotoluene,
2-methylaniline,
o-methaniline,
1-methyl-2-aminobenzene,
2-methyl-1-aminobenzene,
o-methylbenzenamine, 2-toluidine,
o-tolylamine, CI 37077
Molecular weight : 107.16 g/mol
CAS No. : 95-53-4
Index No. : 612-091-00-X
UN No. : 1708
EINECS No. : 202-429-0

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

Fresh air. If breathing stops: immediately apply mechanical ventilation, if necessary oxygen mask. Immediately call in physician.

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In case of skin contact

Wash off with plenty of water. Immediately remove contaminated clothing. Call a physician immediately.

In case of eye contact

Rinse out with plenty of water. Call in ophthalmologist.

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.

Further information

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

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.

7 Handling & Storage :

Handling

Avoid inhalation of vapour or mist.

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

Storage

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. Air sensitive.

8 Exposure Control / Personal Protection :

Personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter A-(P3)

Hand protection

Handle with gloves.

Eye protection

Safety glasses

Protective suit

Protective measures

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	: Clear liquid
Colour	: Yellowish amber
Odour	: Weak aromatic odour
pH (1% Solution)	: 9 [Basic.]
Boiling Point/range	: 199 - 200 °C (390 - 392 °F) at 1,013 hPa (760 mmHg) 89 - 90 °C (192 - 194 °F) at 15 hPa (11 mmHg)
Melting point	: -28 °C (-18 °F)
Flash Point	: 85 °C (185 °F) - closed cup
Autoignition temperature	: 482 °C (900 °F)
Lower explosion limit	: 1.5 %(V)
Upper explosion limit	: No data available
Vapour Pressure	: 0.88 hPa (0.66 mmHg) at 38 °C (100 °F) 0.35 hPa (0.26 mmHg) at 25 °C (77 °F)
Density	: 0.998 g/cm ³
Solubility water	: slightly soluble [1.5 g/100mL (25°C)]
Relative vapour density	: 3.7 - (Air = 1.0)

10 Stability And Reactivity :

Chemical stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents, Strong acids

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Condition to avoid

Air

Hazardous decomposition products

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

11 Toxicological Information :

Acute toxicity	: LD ₅₀ Oral - rat - 670 mg/kg Remarks: Blood:Normocytic anemia. Blood: Pigmented or nucleated red blood cells. Blood: Methemoglobinemia-Carboxyhemoglobin. LC ₅₀ Inhalation - rat - 4 h - 862 ppm Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Tremor. Cyanosis LD ₅₀ Dermal - rabbit - 3,244 mg/kg
RTECS#	: XU2975000
Category of danger	: Combustible Liquid, Target Organ Effect, Toxic by inhalation., Harmful by ingestion., Irritant, Carcinogen
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. Found positive for carcinogenicity in EPA Genetox program. Possible human carcinogen
Health Warnings	: Blood, Kidney, bladder Effect potentiated by: ethanol
Target organs	: Kidney, Bladder, Blood
Potential health effects	: Inhalation Toxic if inhaled. Causes respiratory tract irritation. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation. Ingestion Harmful if swallowed.

12 Ecological Information :

Acute fish toxicity LC ₅₀	: LC0 - Leuciscus idus melanotus - 30 mg/l - 48.0 h Method: OECD Test Guideline 203
Acute toxicity to aquatic invertebrates EC ₅₀	: Daphnia magna (Water flea) - 0.31 - 0.86 mg/l - 48 h Toxicity to algae EC ₅₀ - Desmodesmus subspicatus (green algae) - 3.9 mg/l - 72 h WGK 3 water endangering

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13 Disposal Considerations :

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14 Transport Information :

UN No. : 1708

Hazard Class : 6.1

Packing Group : II

DOT (US)

UN-Number: 1708 Class: 6.1 Packing group: II

Proper shipping name: Toluidines, liquid

Reportable Quantity (RQ): 100 lbs

Marine pollutant: Yes

Poison Inhalation Hazard: No

IMDG

UN-Number: 1708 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: TOLUIDINES, LIQUID

Marine pollutant: Yes

IATA

UN-Number: 1708 Class: 6.1 Packing group: II

Proper shipping name: Toluidines, liquid

15 Regulatory Information :

Safety Information according to GHS

Hazard Statement (s)

H227 Combustible liquid
H302 Harmful if swallowed.
H313 May be harmful in contact with skin.
H316 Causes mild skin irritation.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H350 May cause cancer.
H400 Very toxic to aquatic life.

Precautionary Statement (s)

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311 Call a POISON CENTER or doctor/physician.

Signal Word

Danger

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Hazard Pictogram(s):



RTECS# : XU3150000

Labeling according to EC directives

Hazard symbols :
Risk phrases : Toxic by inhalation, in contact with skin and if swallowed.
R 23/24/25-36-40-43-50 Irritating to eyes .Limited evidence of a carcinogenic effect.
May cause sensitization by skin contact. Very toxic to aquatic organisms.

Safety phrases : After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/ Safety data sheets.
S 28-36/37-45-61

OSHA Hazards

Combustible Liquid, Target Organ Effect, Toxic by inhalation., Harmful by ingestion., Irritant, Carcinogen

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

o-Toluidine CAS-No. 95-53-4

16 Other Information:

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DISCLAIMER : Deepak Nitrite Ltd. provides the information contained herein in good faith but makes no representation as to comprehensiveness or accuracy. This document is only as a guide to a properly trained person, for the appropriate precautions and handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. The data does not signify any warranty with regard to the product's properties.