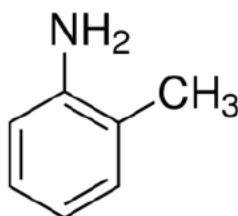


## MATERIAL SAFETY DATA SHEET (MSDS)

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

Product form : Substance  
:  
EC index no : 612-091-00-X  
EC no : 202-429-0  
CAS No : 95-53-4  
Product code : 06345  
Chemical structure :



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

## 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

## 1.2.2. Uses advised against

No additional information available

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

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

## 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity, Category 1B H350  
Acute toxicity (inhal.), Category 3 H331  
Acute toxicity (oral), Category 3 H301  
Serious eye damage/eye irritation, Category 2 H319

# o-TOLUIDINE AR

## Safety Data Sheet

Hazardous to the aquatic environment — Acute  
Hazard, Category 1

Full text of classification categories and H statements : see section 16

### Classification according to Directive 67/548/EEC or 1999/45/EC

Carc.Cat.2; R45

T; R23/25

Xi; R36

N; R50

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS06



GHS08



GHS09

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H301+H331 - Toxic if swallowed or if inhaled  
H319 - Causes serious eye irritation  
H350 - May cause cancer  
H400 - Very toxic to aquatic life

## 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name : o-TOLUIDINE AR

CAS No : 95-53-4

EC no : 202-429-0

EC index no : 612-091-00-X

Full text of R- and H-phrases: see section 16

# o-TOLUIDINE AR

## Safety Data Sheet

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. If you feel unwell, seek medical advice.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: May cause cancer.
Symptoms/injuries after inhalation	: Toxic if inhaled.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Toxic if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
--------------------------------	--

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
----------------------	-----------------------------------

#### 6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Stop release.

### 6.2. Environmental precautions

Very toxic to aquatic life.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
-------------------------	--

### 6.4. Reference to other sections

No additional information available

# o-TOLUIDINE AR

## Safety Data Sheet

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Do not get in eyes, on skin, or on clothing.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container. Keep container tightly closed. Store in a dry place. Protect from moisture.
--------------------	--

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection	: protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Molecular mass	: 107.15 g/mol
Colour	: Clear Colorless to yellow.
Odour	: amine like.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 230 °C
Freezing point	: No data available
Boiling point	: 1990 - 2000
Flash point	: 40 ≥ 50
Auto-ignition temperature	: 4800 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available

# **o-TOLUIDINE AR**

## **Safety Data Sheet**

Vapour pressure	: 0.2 mbar at 200C
Relative vapour density at 20 °C	: 3.7
Relative density	: No data available
Density	: 1.004 g/cm <sup>3</sup>
Solubility	: Water: 1.5 g/100ml (25°C)
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### **9.2. Other information**

No additional information available

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No additional information available

### **10.2. Chemical stability**

Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No additional information available

### **10.4. Conditions to avoid**

Direct sunlight. Air contact. Overheating.

### **10.5. Incompatible materials**

No additional information available

### **10.6. Hazardous decomposition products**

No additional information available

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

Acute toxicity : Inhalation: Toxic if inhaled. Oral: Toxic if swallowed.

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer.

Reproductive toxicity : Not classified

# o-TOLUIDINE AR

## Safety Data Sheet

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Toxic if swallowed.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

##### o-TOLUIDINE AR (95-53-4)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Ecology - waste materials : Hazardous waste due to toxicity.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 1708

UN-No. (IMDG) : 1708

# o-TOLUIDINE AR

## Safety Data Sheet

UN-No.(IATA)	: 1708
UN-No.(ADN)	: 1708
UN-No. (RID)	: 1708

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: TOLUIDINES, LIQUID
Proper Shipping Name (IMDG)	: TOLUIDINES, LIQUID
Proper Shipping Name (IATA)	: TOLUIDINES, LIQUID
Proper Shipping Name (ADN)	: TOLUIDINES, LIQUID
Proper Shipping Name (RID)	: TOLUIDINES, LIQUID
Transport document description (ADR)	: UN 1708 TOLUIDINES, LIQUID, 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1708 TOLUIDINES, LIQUID, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1708 TOLUIDINES, LIQUID, 6.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1708 TOLUIDINES, LIQUID, 6.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1708 TOLUIDINES, LIQUID, 6.1, II, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 6.1
Danger labels (ADR)	: 6.1



#### IMDG

Transport hazard class(es) (IMDG)	: 6.1
Danger labels (IMDG)	: 6.1



#### IATA

Transport hazard class(es) (IATA)	: 6.1
Hazard labels (IATA)	: 6.1



#### ADN

Transport hazard class(es) (ADN)	: 6.1
Danger labels (ADN)	: 6.1



# o-TOLUIDINE AR

## Safety Data Sheet

### RID

Transport hazard class(es) (RID) : 6.1

Danger labels (RID) : 6.1



### 14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : T1

Special provision (ADR) : 279

Limited quantities (ADR) : 100ml

Excepted quantities (ADR) : E4

Packing instructions (ADR) : P001, IBC02

Mixed packing provisions (ADR) : MP15

Portable tank and bulk container instructions (ADR) : T7

Portable tank and bulk container special provisions (ADR) : TP2

Tank code (ADR) : L4BH

Tank special provisions (ADR) : TU15, TE19

Vehicle for tank carriage : AT

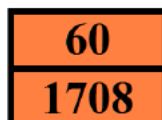
Transport category (ADR) : 2

Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28

Special provisions for carriage - Operation (ADR) : S9, S19

Hazard identification number (Kemler No.) : 60

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : •3X

#### - Transport by sea

Special provision (IMDG) : 279

Limited quantities (IMDG) : 100 ml

Excepted quantities (IMDG) : E4



# o-TOLUIDINE AR

## Safety Data Sheet

Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-A
Stowage category (IMDG)	: A
MFAG-No	: 153

### - Air transport

PCA Excepted quantities (IATA)	: E4
PCA Limited quantities (IATA)	: Y641
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 654
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 662
CAO max net quantity (IATA)	: 60L
Special provision (IATA)	: A113
ERG code (IATA)	: 6L

### - Inland waterway transport

Classification code (ADN)	: T1
Special provisions (ADN)	: 279, 802
Limited quantities (ADN)	: 100 ml
Excepted quantities (ADN)	: E4
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, TOX, A
Ventilation (ADN)	: VE02
Number of blue cones/lights (ADN)	: 2

### - Rail transport

Classification code (RID)	: T1
Special provision (RID)	: 279
Limited quantities (RID)	: 100ml
Excepted quantities (RID)	: E4
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T7
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Loading and unloading (RID)	: CW13, CW28, CW31
Colis express (express parcels) (RID)	: CE5
Hazard identification number (RID)	: 60

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# o-TOLUIDINE AR

## Safety Data Sheet

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

o-Toluidine is on the REACH Candidate List

o-TOLUIDINE AR is not on the REACH Annex XIV List

##### 15.1.2. National regulations

###### Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly hazardous to water (KBwS-Beschluss; WGK No 195)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

###### Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

#### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed
H319	Causes serious eye irritation
H331	Toxic if inhaled
H350	May cause cancer
H400	Very toxic to aquatic life

# **o-TOLUIDINE AR**

## **Safety Data Sheet**

R23/25	Toxic by inhalation and if swallowed
R36	Irritating to eyes
R45	May cause cancer
R50	Very toxic to aquatic organisms
N	Dangerous for the environment
T	Toxic
Xi	Irritant

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*