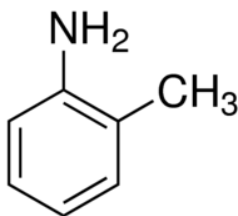


### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Mixture  
:  
EC no : 202-429-0  
CAS No : 95-53-4  
Product code : 6343D  
Formula : C7H9N  
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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

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

Carc. Cat. 2; R45  
Xn; R20/22  
C; R34

Full text of R-phrases: see section 16

# o-TOLUIDINE REAGENT

## Safety Data Sheet

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard symbols



T - Toxic C - Corrosive

R-phrases

: R20/22 - Harmful by inhalation and if swallowed  
R34 - Causes burns  
R45 - May cause cancer

S-phrases

: S4 - Keep away from living quarters  
S24 - Avoid contact with skin  
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S28 - After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)  
S35 - This material and its container must be disposed of in a safe way  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection  
S38 - In case of insufficient ventilation, wear suitable respiratory equipment  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)  
S53 - Avoid exposure - obtain special instructions before use  
S59 - Refer to manufacturer/supplier for information on recovery/recycling

## 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

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Acetic acid	(CAS No) 64-19-7 (EC no) 200-580-7 (EC index no) 607-002-00-6	25 - 50	C; R35 R10	Skin Corr. 1A, H314 Eye Dam. 1, H318 Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332

# o-TOLUIDINE REAGENT

## Safety Data Sheet

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
o-Toluidine substance listed as REACH Candidate	(CAS No) 95-53-4 (EC no) 202-429-0 (EC index no) 612-091-00-X	10 - 15	Carc.Cat.2; R45 T; R23/25 Xi; R36 N; R50	Carc. 1B, H350 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Oral), H301 Eye Irrit. 2, H319 Aquatic Acute 1, H400
Thiourea	(CAS No) 62-56-6 (EC no) 200-543-5 (EC index no) 612-082-00-0	0.01 - 1	Carc.Cat.3; R40 Repr.Cat.3; R63 Xn; R22 N; R51/53	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Repr. 2, H361d Aquatic Chronic 2, H411
Disodium tetraborate decahydrate; borax decahydrate substance listed as REACH Candidate (Disodium tetraborate, anhydrous)	(CAS No) 1303-96-4 (EC no) 215-540-4 (EC index no) 005-011-01-1	0.01 - 1	Repr.Cat.2; R60 Repr.Cat.2; R61	Repr. 1B, H360F Repr. 1B, H360D
Water	(CAS No) 7732-18-5 (EC no) 231-791-2	0.01 - 1	Not classified	Not classified

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries	: Causes severe skin burns and eye damage. May cause cancer.
Symptoms/injuries after ingestion	: Harmful if swallowed.

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

Treat symptomatically.

### 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.
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# o-TOLUIDINE REAGENT

## Safety Data Sheet

### 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

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust/fume/gas/mist/vapours/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling. Wash contaminated clothing before reuse.

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

Technical measures : Comply with applicable regulations.

Storage conditions : Store in original container. Keep container tightly closed. Store in a dry place. Store in a well-ventilated place.

#### 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 face shield

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

# **o-TOLUIDINE REAGENT**

## Safety Data Sheet

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
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**

Thermal decomposition generates : Corrosive vapours.

### **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. Overheating. Sparks.

### **10.5. Incompatible materials**

No additional information available

# o-TOLUIDINE REAGENT

## Safety Data Sheet

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful by inhalation and if swallowed.

Irritation : Not classified

Corrosivity : Causes burns.

Sensitisation : Not classified

Repeated dose toxicity : Not classified

Carcinogenicity : May cause cancer.

Mutagenicity : Not classified

Toxicity for reproduction : Not classified

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

## SECTION 12: Ecological information

### 12.1. Toxicity

No additional information available

### 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 REAGENT (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

Component	
o-Toluidine (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
Disodium tetraborate decahydrate; borax decahydrate (1303-96-4)	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

# o-TOLUIDINE REAGENT

## Safety Data Sheet

### 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 ...

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. (ADR) : 2920  
UN-No. (IMDG) : 2920  
UN-No.(IATA) : 2920  
UN-No.(ADN) : 2920  
UN-No. (RID) : 2920

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Proper Shipping Name (IATA) : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Proper Shipping Name (ADN) : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Proper Shipping Name (RID) : CORROSIVE LIQUID, FLAMMABLE, N.O.S.  
Transport document description (ADR) : UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), I, (D/E), ENVIRONMENTALLY HAZARDOUS  
Transport document description (IMDG) : UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), I, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), I, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), I, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 8 (3)  
Danger labels (ADR) : 8, 3



#### IMDG

Transport hazard class(es) (IMDG) : 8 (3)  
Danger labels (IMDG) : 8, 3



# o-TOLUIDINE REAGENT

## Safety Data Sheet

### IATA

Transport hazard class(es) (IATA) : 8 (3)

Hazard labels (IATA) : 8, 3



### ADN

Transport hazard class(es) (ADN) : 8 (3)

Danger labels (ADN) : 8, 3



### RID

Transport hazard class(es) (RID) : 8 (3)

Danger labels (RID) : 8, 3



### 14.4. Packing group

Packing group (ADR) : I

Packing group (IMDG) : I

Packing group (IATA) : I

Packing group (ADN) : I

Packing group (RID) : I

### 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) : CF1

Special provision (ADR) : 274

Limited quantities (ADR) : 0

Excepted quantities (ADR) : E0

Packing instructions (ADR) : P001

Mixed packing provisions (ADR) : MP8, MP17

Portable tank and bulk container instructions (ADR) : T14

Portable tank and bulk container special provisions (ADR) : TP2, TP27



# o-TOLUIDINE REAGENT

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Tank code (ADR) : L10BH  
Vehicle for tank carriage : FL  
Transport category (ADR) : 1  
Special provisions for carriage - Operation (ADR) : S2, S14  
Hazard identification number (Kemler No.) : 883  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •3W  
APP code : A(fl)

### - Transport by sea

Special provision (IMDG) : 274  
Limited quantities (IMDG) : 0  
Excepted quantities (IMDG) : E0  
Packing instructions (IMDG) : P001  
Tank instructions (IMDG) : T14  
Tank special provisions (IMDG) : TP2, TP27  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-C  
Stowage category (IMDG) : C  
Stowage and handling (IMDG) : SW1, SW2  
MFAG-No : 132

### - Air transport

PCA Excepted quantities (IATA) : E0  
PCA Limited quantities (IATA) : Forbidden  
PCA limited quantity max net quantity (IATA) : Forbidden  
PCA packing instructions (IATA) : 850  
PCA max net quantity (IATA) : 0.5L  
CAO packing instructions (IATA) : 854  
CAO max net quantity (IATA) : 2.5L  
ERG code (IATA) : 8F

### - Inland waterway transport

Classification code (ADN) : CF1  
Special provisions (ADN) : 274  
Limited quantities (ADN) : 0  
Excepted quantities (ADN) : E0  
Equipment required (ADN) : PP, EP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 1

### - Rail transport

Classification code (RID) : CF1  
Special provision (RID) : 274  
Limited quantities (RID) : 0  
Excepted quantities (RID) : E0  
Packing instructions (RID) : P001  
Mixed packing provisions (RID) : MP8, MP17  
Portable tank and bulk container instructions (RID) : T14

# o-TOLUIDINE REAGENT

## Safety Data Sheet

Portable tank and bulk container special provisions (RID) : TP2, TP27  
Tank codes for RID tanks (RID) : L10BH  
Special provisions for RID tanks (RID) : TU38, TE22  
Transport category (RID) : 1  
Hazard identification number (RID) : 883

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains substance on the candidate list in concentration  $\geq 0.1\%$  or with a lower specific limit: o-Toluidine (EC 202-429-0, CAS 95-53-4), Disodium tetraborate, anhydrous (EC 215-540-4, CAS 1303-96-4)

Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

##### Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 3, strongly hazardous to water (Classification according to AwSV, Annex 1)

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:

# o-TOLUIDINE REAGENT

## Safety Data Sheet

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H226	Flammable liquid and vapour
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H350	May cause cancer
H351	Suspected of causing cancer
H360D	May damage the unborn child
H360F	May damage fertility
H361d	Suspected of damaging the unborn child
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
R10	Flammable
R20/22	Harmful by inhalation and if swallowed
R22	Harmful if swallowed
R23/25	Toxic by inhalation and if swallowed
R34	Causes burns
R35	Causes severe burns
R36	Irritating to eyes
R40	Limited evidence of a carcinogenic effect
R45	May cause cancer
R50	Very toxic to aquatic organisms
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R60	May impair fertility
R61	May cause harm to the unborn child
R63	Possible risk of harm to the unborn child
C	Corrosive
N	Dangerous for the environment
T	Toxic
Xi	Irritant
Xn	Harmful

*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*

# **o-TOLUIDINE REAGENT**

Safety Data Sheet

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