

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name O-Tolidine  
CAS number 119-93-7  
Synonyms 3,3'-Dimethylbenzidine, Ortho-Tolidine

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

Identified uses Laboratory chemicals.

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

Company Lab Alley, LLC  
12501 Pauls Valley Road  
Austin, Texas 78737  
U.S.A.  
Telephone 512-668-9918  
Fax 512-886-4008

#### 1.4 Emergency telephone

Emergency Phone # US & Canada: 1-800-535-5053 INFOTRAC  
International 1-352-323-3500 INFOTRAC


### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute oral toxicity (Category 4)  
Carcinogenicity (Category 1B)

#### 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	Harmful if swallowed May cause cancer
Precautionary statements	Obtain special instructions before use Do not handle until all safety precautions have been read and understood Use personal protective equipment as required Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product IF exposed or concerned: Get medical attention/advice IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth Store locked up Dispose of contents/container to an approved waste disposal plant

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Toxic to aquatic life with long lasting effects.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
3,3'-Dimethylbenzidene	Ortho-Tolidine, O-Tolidine	119-93-7	> 95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

<b>If inhaled</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>In case of skin contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>In case of eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>If swallowed</b>	Do NOT induce vomiting. Get medical attention.

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

None reasonably foreseeable.

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

Note to Physician: Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Chemical foam.

**Unsuitable extinguishing media** No information available.

### 5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition.

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

**Flash Point** 244 °C / 471.2 °F

**Autoignition Temperature** No information available.

#### Explosion limits

**Upper** No information available.

**Lower** No information available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

## SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Avoid dust formation.

## 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

## 6.3 Methods and materials for containment and cleaning up

Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

## 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

# SECTION 7: Handling and storage

## 7.1 Precautions for safe handling

### Precautions on safe handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

## 7.2 Conditions for safe storage, including any incompatibilities

### Storage conditions

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Store under an inert atmosphere.

### Incompatibilities

Strong oxidizing agents. Strong acids. Strong bases.

# SECTION 8: Exposure controls/personal protection

## 8.1 Occupational exposure limits

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
3,3'-Dimethylbenzidene		No information available.

### US. ACGIH Threshold Limit Values

Component	Type	Value
3,3'-Dimethylbenzidene		No information available.

### US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
3,3'-Dimethylbenzidene	Ceiling	0.02 mg/m3

### Biological occupational exposure limits

No information available.

## 8.2 Exposure controls

### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment

#### Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin protection

Wear appropriate protective gloves.

#### Body Protection

Wear appropriate protective clothing to prevent skin exposure.

#### Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Control of environmental exposure

Do not let the product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Light brown
Odor	Characteristic
Odor Threshold	No information available.
pH	No information available.
Melting Point/Range	125 - 132 °C / 257 - 269.6 °F
Boiling Point/Range	300.5 °C / 572.9 °F
Evaporation Rate	Not applicable.
Flammability (solid)	No information available.

Flammability or explosive limit	
Upper	No information available.
Lower	No information available.
Vapor Pressure	No information available.
Vapor Density	Not applicable.
Density	No information available.
Solubility	No information available.
Partition coefficient; n-octanol/water	No information available.
Autoignition Temp	No information available.
Decomposition Temp	No information available.
Viscosity	Not applicable.
Molecular Formula	C14H16N2
Molecular Weight	212.29
VOC Content(%)	No information available.
Oxidizing properties	No information available.

## 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None known, based on information available.

### 10.2 Chemical stability

Air sensitive, light sensitive.

### 10.3 Possibility of hazardous reactions

None under normal processing.

### 10.4 Conditions to avoid

Exposure to air. Exposure to light. Incompatible products.

### 10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

### 10.6 Hazardous decomposition products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

#### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation

3,3'-Dimethylbenzidene	404 mg/kg	Not listed.	Not listed.
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**Skin corrosion/irritation**

May cause skin irritation.

**Serious eye damage/eye irritation**

May cause eye irritation.

**Respiratory or skin sensitization**

No information available.

**Germ cell mutagenicity**

Animal experiments showed mutagenic and teratogenic effects.

**Carcinogenicity**

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
3,3'-Dimethylbenzidene	119-93-7	Group 2B	Reasonably Anticipated	A3	Listed	A3

**Specific target organ toxicity - single exposure**

None known.

**Specific target organ toxicity - repeated exposure**

None known.

**Reproductive toxicity**

No information available.

**Chronic effects**

No information available.

**11.2 Additional Information**

The toxicological properties have not been fully investigated.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product		Species	Test Results
3,3'-Dimethylbenzidene	EC50	Water flea	3.2 mg/L 24 h

**12.2 Persistence and degradability**

Persistence is unlikely.

**12.3 Bio accumulative potential**

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

No information available.

#### 12.6 Endocrine disrupting properties

No information available.

#### 12.7 Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### SECTION 14: Transport information

#### DOT (US)

UN-no	UN 3077
Proper Shipping Name	Environmentally hazardous substances, solid, n.o.s
Hazard Class	9
Packing Group	III

#### IMDG

UN-no	UN 3077
Proper Shipping Name	Environmentally hazardous substances, solid, n.o.s
Hazard Class	9
Packing Group	III

#### IATA

UN-no	UN 3077
Proper Shipping Name	Environmentally hazardous substances, solid, n.o.s
Hazard Class	9
Packing Group	III

### SECTION 15: Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not listed.



**CERCLA Hazardous Substance List (40 CFR 302.4)**

Listed. RQ= 10 lb

**SARA 304 Emergency release notification**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous**

See section 2 for more information.

**SARA 313 (TRI reporting)**

Regulated. Weight: 95%; Threshold value: 0.1%

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Regulated.

**Safe Drinking Water Act**

Not regulated.

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Listed.

**US. New Jersey Worker and Community Right-to-Know Act**

Listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Listed.

**California Proposition 65**

Listed.

## **SECTION 16: Other information**

Issue date: 10/01/2024

## **SECTION 17: Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.