



## Safety Data Sheet

Classified according to WHMIS 2015

### SECTION 1: Identification

#### 1.1. Product Identifier

**Trade Name or Designation:** o-Tolidine, 1% (w/v) in Methanol

**Product Number:** R8639000

**Other Identifying Product Numbers:** R8639000-500C

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

#### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Ricca Chemical Company

**Address:** 448 West Fork Drive

Arlington, TX 76012 USA

**Telephone:** 888-467-4222

#### 1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)

800-424-9300

CHEMTREC (International)

1+ 703-527-3887

# Safety Data Sheet

## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

| Hazard Class   | Category   | Hazard Statements | Precautionary Statements:  |
|--|------------|-------------------|--|
| Acute Toxicity - Oral  | Category 3 | H301              | P264, P270, P301+P310, P321, P330, P405, P501  |
| Eye Damage / Irritation  | Category 2 | H319              | P264, P280, P305+P351+P338, P337+P313  |
| Carcinogenicity  | Category 1 | H350              | P201, P202, P280, P308+P313, P405, P501  |
| Reproductive Toxicity  | Category 1 | H360              | P201, P202, P280, P308+P313, P405, P501  |
| Specific Target Organs/Systemic Toxicity Following Single Exposure | Category 2 | H371              | P260, P264, P270, P308+P311, P405, P501  |
| Flammable Liquids  | Category 2 | H225              | P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501 |
| Hazardous to the Aquatic Environment (Chronic)                     | Category 3 | H412              | P273, P501   |

### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

| Hazard Number | Hazard Statement                                   |
|---------------|--|
| H225          | Highly flammable liquid and vapor.                 |
| H301          | Toxic if swallowed.                                |
| H319          | Causes serious eye irritation.                     |
| H350          | May cause cancer.                                  |
| H360          | May damage fertility or the unborn child.          |
| H371          | May cause damage to organs.                        |
| H412          | Harmful to aquatic life with long lasting effects. |

## Safety Data Sheet

**Precautionary Statements:**

| Precautionary Number | Precautionary Statement  |
|----------------------|--|
| P201                 | Obtain special instructions before use.  |
| P202                 | Do not handle until all safety precautions have been read and understood.  |
| P210                 | Keep away from heat, sparks and open flame. No smoking.  |
| P233                 | Keep container tightly closed.   |
| P240                 | Ground container and receiving equipment.  |
| P241                 | Use explosion-proof equipment.   |
| P242                 | Use only non-sparking tools.   |
| P243                 | Take precautionary measures against static discharge.  |
| P260                 | Do not breathe fumes, mist, vapors, or spray.  |
| P264                 | Wash arms, hands and face thoroughly after handling.   |
| P270                 | Do not eat, drink or smoke when using this product.  |
| P273                 | Avoid release to the environment.  |
| P280                 | Wear protective gloves and eye protection.   |
| P301+P310            | IF SWALLOWED: Immediately call a POISON CENTER or physician.   |
| P303+P361+P353       | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                     |
| P305+P351+P338       | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P311            | IF exposed or concerned: Call a POISON CENTER or physician.  |
| P308+P313            | IF exposed or concerned: Get medical attention.  |
| P321                 | Specific treatment (Wash areas of contact with water).   |
| P330                 | Rinse mouth.   |
| P337+P313            | If eye irritation persists: Get medical attention.   |
| P370+P378            | In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.   |
| P403+P235            | Store in a well-ventilated place. Keep cool.   |
| P405                 | Store locked up.   |
| P501                 | Dispose of contents in accordance with local, state, federal and international regulations.                                      |

**2.4. Hazards not Otherwise Classified or Covered by GHS**

Data not available.

# Safety Data Sheet

## SECTION 3: Composition / Information on Ingredients

### 3.1. Components of Substance or Mixture

| Chemical Name              | Formula  | Molecular Weight | CAS Number | Weight% |
|----------------------------|--|------------------|------------|---------|
| Methyl Alcohol             | CH <sub>3</sub> OH   | 32.04 g/mol      | 67-56-1    | 98.75   |
| o-Tolidine Dihydrochloride | C <sub>14</sub> H <sub>18</sub> Cl <sub>2</sub> N <sub>2</sub> | 285.21 g/mol     | 612-82-8   | 1.25    |

## SECTION 4: First-Aid Measures

### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

**Ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or physician. Dilute immediately with water or milk. Induce vomiting. Call a physician.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Toxic if swallowed. Causes serious eye irritation. May cause cancer. May damage fertility or the unborn child. May cause damage to organs. DANGER! Flammable. Contains a suspected carcinogen. Keep away from heat, sparks and open flames. Keep container closed. Use with adequate ventilation. Avoid prolonged breathing of vapor or contact with skin, eyes or clothing. Harmful if swallowed. Do not pipet by mouth. If ingested, induce vomiting until vomitus is clear. Call a physician. Wash areas of contact with plenty of water. For eyes, get medical attention. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: Results in drying and cracking which can lead to secondary infections and dermatitis. Dermal absorption causes many of the symptoms of inhalation.

### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing Media

In case of fire: Use dry chemical, foam or carbon dioxide to extinguish. Use water spray, dry chemical, alcohol foam, or carbon dioxide for extinguishing the surrounding fire. Water spray can be used to dilute spills to non-flammable mixtures.

### 5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks and open flames. Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Sensitive to static discharge.

# Safety Data Sheet

## 5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## SECTION 6: Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Remove all sources of ignition. Contain spill. Do not flush to sewer. Absorb with suitable inert material (vermiculite, dry sand, etc) and place in a chemical waste container for proper disposal in an approved waste disposal facility. Ventilate area of spill. Have extinguishing agent available in case of fire. Use non-sparking tools and equipment. Dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage. Store in secure, flammable storage area away from all sources of ignition. Empty containers may be hazardous since they retain product residues.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1 Control Parameters

| Chemical Name            | Limit Type | Country | Exposure Limit                         | Information Source   |
|--------------------------|------------|---------|--|--|
| Methyl Alcohol (67-56-1) | TWA        | USA     | 200 ppm TWA; 260 mg/m <sup>3</sup> TWA | U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)               |
| Methyl Alcohol (67-56-1) | TLV-STEL   | USA     | 250 ppm STEL                           | ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL) |
| Methyl Alcohol (67-56-1) | TLV-TWA    | USA     | 200 ppm TWA                            | ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)      |

### 8.2. Exposure Controls

**Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved atmosphere supplied respirator must be worn.



## Safety Data Sheet

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves.

**Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved atmosphere supplied respirator must be worn. Chemical resistant gloves. Safety glasses or goggles.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Appearance:** Liquid

**Physical State:** Liquid

**Odor:** Alcohol

**Odor Threshold:** Data not available.

**pH:** Data not available.

**Melting/Freezing Point:** Data not available.

**Initial Boiling Point/Range:** Data not available.

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 0.80

**Solubility:** Miscible

**Partition Coefficient:** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

## Safety Data Sheet

### 10.2. Possibility of Hazardous Reactions

Data not available.

### 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed.

### 10.4. Hazardous Decomposition Products

Will not occur.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Toxic if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Immediately call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Rinse mouth. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: (Methanol) 5628 mg/kg, (o-Tolidine) 404 mg/kg, details of toxic effects not reported other than lethal dose value.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

## Safety Data Sheet

**Reproductive Toxicity:**

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Specific Target Organ Toxicity from Single Exposure:**

May cause damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed or concerned: Call a POISON CENTER or physician. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

**Specific Target Organ Toxicity from Repeated Exposure:**

Not applicable.

**Aspiration Hazard:**

Not applicable.

**Additional Toxicology Information:**

Data not available.

### SECTION 12: Ecological Information

**12.1. Ecotoxicity**

Harmful to aquatic life with long lasting effects. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

**12.2. Persistence and Degradability**

Data not available.

**12.3. Bioaccumulative Potential**

Data not available.

**12.4. Mobility in Soil**

Data not available.

**12.5. Other Adverse Ecological Effects**

Data not available.

### SECTION 13: Disposal Considerations

**13.1. Waste Treatment Methods**

Data not available.



# Safety Data Sheet

## SECTION 14: Transportation Information

### 14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Sizes: 500 mL

UN Number: UN1230

Proper Shipping Name: Methanol Solution

Hazard Class: 3

Packing Group: II

Hazard Label(s):



### 14.2. Transportation by Air - International Air Transport Association (IATA)

Sizes: 500 mL

UN Number: UN1230

Proper Shipping Name: Methanol Solution

Hazard Class: 3 (6.1)

Packing Group: II

Hazard Label(s):



### 14.3 Transportation of Dangerous Goods (TDG, Canada)

Sizes: 500 mL

UN Number: UN1230

Proper Shipping Name: METHANOL SOLUTION

Hazard Class: 3

Packing Group: II

Hazard Label(s):



## Safety Data Sheet

### SECTION 15: Regulatory Information

#### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

#### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Not listed.

#### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Methyl Alcohol (CAS # 67-56-1): 5000 lb final RQ; 2270 kg final RQ

#### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

o-Tolidine Dihydrochloride (CAS # 612-82-8): 0.1 % de minimis concentration

Methyl Alcohol (CAS # 67-56-1): 1.0 % de minimis concentration

#### 15.5. Massachusetts Right-to-Know Substance List

Methyl Alcohol (CAS # 67-56-1): Present

#### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Methyl Alcohol (CAS # 67-56-1): "Present" As Denatured alcohols [RR-00113-8]

Methyl Alcohol (CAS # 67-56-1): Environmental hazard

Methyl Alcohol (CAS # 67-56-1): Present

#### 15.7. New Jersey Worker and Community Right-to-Know Components

o-Tolidine Dihydrochloride (CAS # 612-82-8): sn 3695

o-Tolidine Dihydrochloride (CAS # 612-82-8): SN 3695 500 lb TPQ

Methyl Alcohol (CAS # 67-56-1): flammable - third degree; teratogen

Methyl Alcohol (CAS # 67-56-1): sn 1222

Methyl Alcohol (CAS # 67-56-1): SN 1222 500 lb TPQ

#### 15.8. California Proposition 65

o-Tolidine Dihydrochloride (CAS # 612-82-8): 0.059 µg/day NSRL

o-Tolidine Dihydrochloride (CAS # 612-82-8): carcinogen, 4/1/1992

Methyl Alcohol (CAS # 67-56-1): developmental toxicity, 3/16/2012

#### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

o-Tolidine Dihydrochloride (CAS # 612-82-8): Present (DSL)

Methyl Alcohol (CAS # 67-56-1): Present (DSL)

Methyl Alcohol (CAS # 67-56-1): Present (NDSL)

#### 15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

o-Tolidine Dihydrochloride (CAS # 612-82-8): Present (ACTIVE)

Methyl Alcohol (CAS # 67-56-1): Present (ACTIVE)

## Safety Data Sheet

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

o-Tolidine Dihydrochloride (CAS # 612-82-8): 210-322-5

Methyl Alcohol (CAS # 67-56-1): 200-659-6

Methyl Alcohol (CAS # 67-56-1): 270-649-4

## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. Toxic if swallowed. Causes serious eye irritation. May cause cancer. May damage fertility or the unborn child. May cause damage to organs. Harmful to aquatic life with long lasting effects.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Rinse mouth. If eye irritation persists: Get medical attention. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

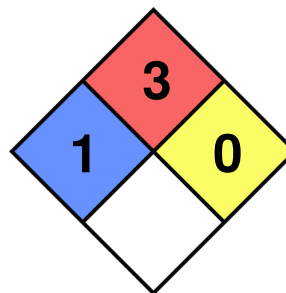
**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

## Safety Data Sheet

### 16.3. National Fire Protection Association (NFPA) Rating

**Health:** 1  
**Flammability:** 3  
**Reactivity:** 0  
**Special Hazard:**



### 16.4. Document Revision

**Last Revision Date:** 2023-09-11

## DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.