

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-19

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

### 1.1 Product identifiers

Product name : o-Toluidine  
Product Number : T103928  
Brand : aladdin  
CAS-No. : 95-53-4

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

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Flammable liquids (Category 4), H227

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 5), H313

Serious eye damage/eye irritation (Category 2A), H319

Carcinogenicity (Category 1A), H350

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

### 2.2 GHS Label elements, including precautionary statements

**Pictogram****Signal word**

Danger

**Hazard statement(s)**

|           |                                                 |
|-----------|-------------------------------------------------|
| H227      | Combustible liquid                              |
| H313      | May be harmful in contact with skin             |
| H319      | Causes serious eye irritation                   |
| H350      | May cause cancer                                |
| H400      | Very toxic to aquatic life                      |
| H411      | Toxic to aquatic life with long lasting effects |
| H301+H331 | Toxic if swallowed or if inhaled                |

**Precautionary statement(s)**

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P264           | Wash hands [and ...] thoroughly after handling.                                                                                  |
| P270           | Do not eat, drink or smoke when using this product.                                                                              |
| P271           | Use only outdoors or in a well-ventilated area.                                                                                  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P321           | Specific treatment (see ... on this label).                                                                                      |
| P330           | Rinse mouth.                                                                                                                     |
| P391           | Collect spillage.                                                                                                                |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P405           | Store locked up.                                                                                                                 |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P501           | Dispose of contents/container to an approved waste disposal plant.                                                               |
| P203           | Obtain, read and follow all safety instructions before use.                                                                      |
| P264+P265      | Wash hands [and ...] thoroughly after handling. Do not touch eyes.                                                               |
| P301+P316      | IF SWALLOWED: Get emergency medical help immediately.                                                                            |
| P318           | if exposed or concerned, get medical advice.                                                                                     |
| P337+P317      | If eye irritation persists: Get medical help.                                                                                    |

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS****SECTION 3: Composition/information on ingredients****3.1 Substances**

|                  |                                              |
|------------------|----------------------------------------------|
| Synonyms         | : 2-Aminotoluene 2-Methylaniline 2-Toluidine |
| Formula          | : C7H9N                                      |
| Molecular weight | : 107.16                                     |
| CAS No.          | : 95-53-4                                    |
| EC-NO.           | : 202-429-0                                  |

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| Component   | Classification                                                                                                                                                                                                                                                                                                                           | Concentration       |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| o-Toluidine | Flammable liquids Category 4; Acute toxicity Category 3; Acute toxicity Category 5; Serious eye damage/eye irritation Category 2A; Carcinogenicity Category 1A; Short-term (acute) aquatic hazard Category 1; Long-term (chronic) aquatic hazard Category 2; H227, H301, H331, H313, H319, H350, H400, H411 M-Factor - Aquatic Acute: 10 | analytical standard |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

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

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Unsuitable extinguishing media

no data available

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

Carbon oxides Nitrogen oxides (NOx) Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

Wear self-contained breathing apparatus for firefighting if necessary.

## 5.4 Further information

Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

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

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 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.

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Sensitive to air and light, stored in argon and away from light.

### 7.3 Specific end use(s)

no data available

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment****Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineer protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                                           |
|-------------------------------------------------|---------------------------------------------------------------------------|
| a) Appearance                                   | form: Liquid color: Light Orange to Dark Orange and Light Red to Dark Red |
| b) Odour                                        | no data available                                                         |
| c) Odour Threshold                              | no data available                                                         |
| d) pH                                           | no data available                                                         |
| e) Melting point/freezing point                 | -28 °C                                                                    |
| f) Initial boiling point and boiling range      | 199-200 °C                                                                |
| g) Flash point                                  | 85 °C                                                                     |
| h) Evaporation rate                             | no data available                                                         |
| i) Flammability (solid, gas)                    | no data available                                                         |
| j) Upper/lower flammability or explosive limits | no data available                                                         |
| k) Vapour pressure                              | no data available                                                         |
| l) Vapour density                               | no data available                                                         |
| m) Relative density                             | no data available                                                         |
| n) Water solubility                             | no data available                                                         |
| o) Partition coefficient: n-octanol/water       | no data available                                                         |
| p) Auto-ignition temperature                    | no data available                                                         |
| q) Decomposition temperature                    | no data available                                                         |
| r) Viscosity                                    | no data available                                                         |
| s) Explosive properties N                       | no data available                                                         |

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t) Oxidizing properties N

no data available

## 9.2 Other safety information

no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with: acids

### 10.4 Conditions to avoid

Air Strong heating.

### 10.5 Incompatible materials

various plastics

### 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male - 750 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male - 4 h - 3.79 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male - 3,250 mg/kg

Remarks: (ECHA)

#### Skin corrosion/irritation

Skin - Rabbit Result: Irritations - 24 h (Draize Test)

#### Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation (Draize Test)

#### Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429) The value is given in analogy to the following substances: p-toluidine

#### Germ cell mutagenicity

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Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: positive Remarks: (National Toxicology Program) Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Result: positive Remarks: (ECHA) Test Type: In vivo micronucleus test Species: Rat Cell type: Bone marrow Application Route: Intraperitoneal injection Result: positive Remarks: (National Toxicology Program)

**Carcinogenicity**

Presumed to have carcinogenic potential for humans

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: XU2975000

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) -30.9 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria Remarks: (ECHA) (2-Toluidine)

Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) flow-through test NOEC - Daphnia magna (Water flea) - 0.013 mg/l- 21 d (OECD Test Guideline 211)

**12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d Result: 88 - 90 % - Readily biodegradable. (OECD Test Guideline 301A)

**12.3 Bioaccumulative potential**

Bioaccumulation Cyprinus carpio (Carp) - 28 d - 0.1 mg/l(2-Toluidine) Bioconcentration factor (BCF): < 1.3

**12.4 Mobility in soil**

no data available

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**12.5 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

no data available

**SECTION 13:**

**13.1 Disposal considerations**

**Product**

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information**

**DOT (US)**

|                                          |                                            |                                             |
|------------------------------------------|--------------------------------------------|---------------------------------------------|
| UN number: 1708                          | Packing group: II                          | Class: 6.1                                  |
| Proper shipping name: TOLUIDINES, LIQUID | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: YES               |                                            |                                             |

**IMDG**

|                                          |                   |                           |
|------------------------------------------|-------------------|---------------------------|
| UN number: 1708                          | Packing group: II | EMS-No: no data available |
| Proper shipping name: TOLUIDINES, LIQUID |                   |                           |

**IATA**

|                                          |                   |            |
|------------------------------------------|-------------------|------------|
| UN number: 1708                          | Packing group: II | Class: 6.1 |
| Proper shipping name: TOLUIDINES, LIQUID |                   |            |

**SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**SECTION 16: Other information**

|                  |                                                                                                |
|------------------|------------------------------------------------------------------------------------------------|
| Prepared By      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: QualityAssurance@aladdinsci.com |
| Creation Date    | 22-Nov-2023                                                                                    |
| Revision Date    | 19-Sep-2025                                                                                    |
| Print Date       | 24-Sep-2025                                                                                    |
| Revision Summary | SDS sections updated v1                                                                        |

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