

# SAFETY DATA SHEET

Version: v1

Revision Date: 2025-09-12

Print Date: 2025-09-16

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

### 1.1 Product identifiers

Product name : o-Nitrotoluene  
Product Number : N104633  
Brand : aladdin  
CAS-No. : 88-72-2

### 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)

Acute toxicity, Oral (Category 4), H302

Germ cell mutagenicity (Category 1B), H340

Carcinogenicity (Category 1B), H350

Reproductive toxicity (Category 2), H361

Short-term (acute) aquatic hazard (Category 2), H401

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

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

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|                                   |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| H302                              | Harmful if swallowed                                                       |
| H340                              | May cause genetic defects                                                  |
| H350                              | May cause cancer                                                           |
| H361f                             | Suspected of damaging fertility                                            |
| H411                              | Toxic to aquatic life with long lasting effects                            |
| <b>Precautionary statement(s)</b> |                                                                            |
| P264                              | Wash hands [and ...] thoroughly after handling.                            |
| P270                              | Do not eat, drink or smoke when using this product.                        |
| P273                              | Avoid release to the environment.                                          |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection. |
| P281                              | Use personal protective equipment as required.                             |
| P330                              | Rinse mouth.                                                               |
| P391                              | Collect spillage.                                                          |
| P405                              | Store locked up.                                                           |
| P501                              | Dispose of contents/container to an approved waste disposal plant.         |
| P203                              | Obtain, read and follow all safety instructions before use.                |
| P301+P317                         | IF SWALLOWED: Get medical help.                                            |
| P318                              | if exposed or concerned, get medical advice.                               |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                                                    |
|------------------|--------------------------------------------------------------------|
| Synonyms         | : 2-Nitrotoluene alpha-Methylnitrobenzene 1-methyl-2-nitro-Benzene |
| Formula          | : C7H7NO2                                                          |
| Molecular weight | : 137.14                                                           |
| CAS No.          | : 88-72-2                                                          |
| EC-NO.           | : 201-853-3                                                        |

| Component             | Classification    | Concentration |
|-----------------------|-------------------|---------------|
| <b>o-Nitrotoluene</b> | no data available | ≥99%          |

## 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. Move out of dangerous area.

#### 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. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

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**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

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**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**

no data available

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

no data available

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

**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**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

no data available

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

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

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Non-combustible, acute toxic Cat.1 and 2 / very toxic hazardous materials Dry storage.

### 7.3 Specific end use(s)

no data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses 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. Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested: Butoject®; (KCL 897 / Aldrich Z677647, Size M) Splash contact Material: Nature latex/chloroprene Minimum layer thickness: 0.6 mm Break through time: 30 min Material tested: Lapren®; (KCL 706 / Aldrich Z677558, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### 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 a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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                                   | no data available |
| b) Odour                                        | no data available |
| c) Odour Threshold                              | no data available |
| d) pH                                           | no data available |
| e) Melting point/freezing point                 | -9°C              |
| f) Initial boiling point and boiling range      | 222°C             |
| g) Flash point                                  | 95                |
| 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 |
| t) Oxidizing properties N                       | no data available |

### 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Oxidizing agents, Strong bases

### 10.5 Incompatible materials

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Nitrogen oxides (NOx) Other decomposition products - No data available In the event of fire: see section 5

### 10.6 Hazardous decomposition products

LD50 Oral - Rat - 891 mg/kg Inhalation: No data available Dermal: No data available No data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Skin - Rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)

#### Skin corrosion/irritation

Eyes - Rabbit Result: No eye irritation - 24 h (OECD Test Guideline 405)

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitisation

May alter genetic material. In vivo tests showed mutagenic effects Hamster fibroblast Result: positive OECD Test Guideline 486 Rat - male Result: positive DNA damage

#### Germ cell mutagenicity

Carcinogenicity - Rat - male and female - Oral adenofibrosis This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 2A - Group 2A: Probably carcinogenic to humans (2-Nitrotoluene) IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 2A - Group 2A: Probably carcinogenic to humans (2-Nitrotoluene) IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Nitrotoluene) 2A - Group 2A: Probably carcinogenic to humans (2-Nitrotoluene) NTP: Reasonably anticipated to be a human carcinogen (2-Nitrotoluene) NTP: Reasonably anticipated to be a human carcinogen (2-Nitrotoluene) OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### Carcinogenicity

Suspected human reproductive toxicant Reproductive toxicity - Rat - male and female - Oral Maternal Effects: Menstrual cycle changes or disorders. Paternal Effects: Spermatogenesis (including genetic material, sperm

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morphology, motility, and count). Paternal Effects: Testes, epididymis, sperm duct.

**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**

Toxicity to daphnia and other aquatic invertebrates Immobilization EC50 - Daphnia magna (Water flea) - 5.4 mg/l - 48 h (OECD Test Guideline 202) Toxicity to algae EC50 - Chlorella pyrenoidosa - 22 mg/l - 72 h (OECD Test Guideline 201) &nbsp;

**Additional Information**

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**SECTION 12: Ecological information****12.1 Toxicity****12.2 Persistence and degradability**

no data available

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

**12.6 Other adverse effects**

no data available

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**SECTION 13:****13.1 Disposal considerations****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

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

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Dispose of as unused product.

### SECTION 14: Transport information

**DOT (US)**

|                                             |                                            |                                             |
|---------------------------------------------|--------------------------------------------|---------------------------------------------|
| UN number: 1664                             | Packing group: II                          | Class: 6.1                                  |
| Proper shipping name: Nitrotoluenes, liquid | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: no data available    |                                            |                                             |

**IMDG**

|                                             |                   |                           |
|---------------------------------------------|-------------------|---------------------------|
| UN number: 1664                             | Packing group: II | EMS-No: no data available |
| Proper shipping name: Nitrotoluenes, liquid |                   |                           |

**IATA**

|                                             |                   |            |
|---------------------------------------------|-------------------|------------|
| UN number: 1664                             | Packing group: II | Class: 6.1 |
| Proper shipping name: Nitrotoluenes, liquid |                   |            |

### SECTION 15: Regulatory information

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

### SECTION 16: Other information

|                         |                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Prepared By</b>      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: <a href="mailto:QualityAssurance@aladdinsci.com">QualityAssurance@aladdinsci.com</a> |
| <b>Creation Date</b>    | 10-Sep-2020                                                                                                                                         |
| <b>Revision Date</b>    | 12-Sep-2025                                                                                                                                         |
| <b>Print Date</b>       | 16-Sep-2025                                                                                                                                         |
| <b>Revision Summary</b> | SDS sections updated v1                                                                                                                             |

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