

ALADDIN SCIENTIFIC CORPORATION  
14078 Meridian Parkway, Riverside, CA. 92518

# SAFETY DATA SHEET

Version: v1  
Revision Date: 2024-01-10  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : tert-Butyl hydroperoxide solution  
Product Number : B106035  
Brand : aladdin  
CAS-No. : 75-91-2(water)

### 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 3), H226

Organic peroxides (Type F), H242

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Skin corrosion/irritation (Category 1), H314

Serious eye damage/eye irritation (Category 1), H318

Skin sensitization (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Specific target organ toxicity - single exposure (Category 2), H371

Specific target organ toxicity - single exposure (Category 3), respiratory tract irritation, H335

Specific target organ toxicity - repeated exposure (Category 1), H372

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



Danger

Signal word

Hazard statement(s)

|                            |   |
|----------------------------|---|
| H226                       | Flammable liquid and vapor  |
| H242                       | Heating may cause a fire  |
| H302                       | Harmful if swallowed  |
| H314                       | Causes severe skin burns and eye damage   |
| H317                       | May cause an allergic skin reaction   |
| H335                       | May cause respiratory irritation  |
| H341                       | Suspected of causing genetic defects  |
| H371                       | May cause damage to organs  |
| H372                       | Causes damage to organs through prolonged or repeated exposure                                  |
| H411                       | Toxic to aquatic life with long lasting effects   |
| H311+H331                  | Toxic in contact with skin or if inhaled.   |
| Precautionary statement(s) |   |
| P201                       | Obtain special instructions before use.   |
| P210                       | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking. |
| P202                       | Do not handle until all safety precautions have been read and understood.                       |
| P220                       | Keep away from clothing and other combustible materials.  |
| P233                       | Keep container tightly closed.  |
| P234                       | Keep only in original container.  |
| P240                       | Ground/bond container and receiving equipment.  |
| P241                       | Use explosion-proof [electrical/ventilating/lighting/...] equipment.                            |
| P242                       | Use only non-sparking tools.  |
| P243                       | Take precautionary measures against static discharge.   |
| P260                       | Do not breathe dust/fume/gas/mist/vapors/spray.   |
| 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.   |
| P272                       | Contaminated work clothing should not be allowed out of the workplace.                          |

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|                     |  |
|---------------------|--|
| P273                | Avoid release to the environment.  |
| P280                | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P391                | Collect spillage.  |
| P301+P330+P331      | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.   |
| P303+P361+P353      | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].   |
| P308+P311           | IF exposed or concerned: Call a POISON CENTER/doctor/...   |
| P333+P313           | IF SKIN irritation or rash occurs: Get medical advice/attention.   |
| P361+P364           | Take off immediately all contaminated clothing and wash it before reuse.   |
| P370+P378           | In case of fire: Use ... to extinguish.  |
| P405                | Store locked up.   |
| P410                | Protect from sunlight.   |
| P420                | Store separately.  |
| P403+P233           | Store in a well-ventilated place. Keep container tightly closed.   |
| P403+P235           | Store in a well-ventilated place. Keep cool.   |
| P501                | Dispose of contents/container to an approved waste disposal plant.   |
| P301+P312+P330      | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  |
| P304+P340+P310      | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.   |
| P305+P351+P338+P310 | IF IN EYES: Rinse cautiously with water for several minutes. If contact lenses are worn and can be easily removed, remove Contact lenses. Continue rinsing. Immediately call an emergency center/doctor. |

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

|                  |  |
|------------------|--|
| Synonyms         | : 1,1-Dimethylethyl hydroperoxide; 2-Hydroperoxy-2-methylpropane; TBHP |
| Formula          | : C4H10O2  |
| Molecular weight | : 90.12  |

| Component                       | Classification | Concentration |
|---------------------------------|----------------|---------------|
| <b>Water</b>                    |                |               |
| CAS-No. : 7732-18-5             |                |               |
| EC-No. : 231-791-2              |                |               |
| <b>tert-Butyl hydroperoxide</b> |                |               |

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| Component          | Classification   | Concentration |
|--------------------|--|---------------|
| CAS-No. : 75-91-2  | Flam. Liq. 3; Org. Perox. A; Acute Tox. 4; Acute Tox. 3; Skin Corr. 1C; Eye              |               |
| EC-No. : 200-915-7 | Dam. 1; Muta. 2; Aquatic Chronic 2; H226, H240, H302, H332, H311, H314, H318, H341, H411 |               |

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### 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

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

Unsuitable extinguishing media

no data available

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

Carbon oxides Mixture with combustible ingredients. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## 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

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

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

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

### 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

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

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

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Separately or together with other organic peroxides only and away from sources of ignition and heat. Recommended storage temperature 2 - 8 °C

### 7.3 Specific end use(s)

no data available

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**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

Ingredients with workplace control parameters

| Component                | CAS-No. | Value                          | Control parameters | Basis                                   |
|--------------------------|---------|--------------------------------|--------------------|---|
| tert-Butyl hydroperoxide | 75-91-2 | TWA                            | 0.1 ppm            | USA. ACGIH Threshold Limit Values (TLV) |
|                          | Remarks | Danger of cutaneous absorption |                    |   |

**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 EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's 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. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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 fullface particle respirator type N100 (US) or type P3 (EN 143) 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

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

**SECTION 9: Physical and chemical properties**

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

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## 9.1 Information on basic physical and chemical properties

|   |                               |
|---|-------------------------------|
| a) Appearance                                   | form: liquid color: Colorless |
| b) Odour  | no data available             |
| c) Odour Threshold                              | no data available             |
| d) pH   | no data available             |
| e) Melting point/freezing point                 | no data available             |
| f) Initial boiling point and boiling range      | no data available             |
| g) Flash point                                  | no data available             |
| 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

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heating.

### 10.5 Incompatible materials

Powdered metals, Organic materials Strong oxidizing agents

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## 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

Acute toxicity estimate Inhalation - 4 h - 4.29 mg/l - vapor(Calculation method)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Acute toxicity estimate Dermal - 628.57 mg/kg

(Calculation method)

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

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

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



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**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**

no data available

**12.6 Other adverse effects**

no data available

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

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur.

Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging

Dispose of as unused product.

**SECTION 14: Transport information**

DOT (US)

UN number: 3109

Packing group: no data available

Class: 5.2 (8)

Proper shipping name: ORGANIC

Reportable Quantity(RQ): no data

Poison Inhalation Hazard: no data

PEROXIDE TYPE F, LIQUID (tert-BUTYL

available

HYDROPEROXIDE)

Environmental Hazards: no

IMDG

UN number: 3109

Packing group: no data available

EMS-No: no data available

Proper shipping name: ORGANIC PEROXIDE TYPE F, LIQUID (tert-BUTYL HYDROPEROXIDE)

IATA

UN number: 3109

Packing group: no data available

Class: 5.2 (8)

Proper shipping name: ORGANIC PEROXIDE TYPE F, LIQUID (tert-BUTYL HYDROPEROXIDE)

**SECTION 15: Regulatory information**

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

## SECTION 16: Other information

**Prepared By**

Regulatory Affairs  
ALADDIN SCIENTIFIC CORPORATION  
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**Revision Summary**

SDS sections updated v1

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