

# SAFETY DATA SHEET

Version: v1

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

### 1.1 Product identifiers

Product name : Tetrabutylammonium perchlorate  
Product Number : T109600  
Brand : aladdin  
CAS-No. : 1923-70-2

### 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)

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H272 May intensify fire; oxidizer  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H335 May cause respiratory irritation

Precautionary statement(s)

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|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P210           | Keep away from heat, hot surface, sparks, open flames and other ignition sources. - No smoking.                                  |
| P220           | Keep away from clothing and other combustible materials.                                                                         |
| P261           | Avoid breathing dust/fume/gas/mist/vapors/spray.                                                                                 |
| P264           | Wash hands [and ...] thoroughly after handling.                                                                                  |
| 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).                                                                                      |
| P302+P352      | IF ON SKIN: wash with plenty of water.                                                                                           |
| 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. |
| P362+P364      | Take off contaminated clothing and wash it before reuse.                                                                         |
| P370+P378      | In case of fire: Use ... to extinguish.                                                                                          |
| 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.                                                               |
| P264+P265      | Wash hands [and ...] thoroughly after handling. Do not touch eyes.                                                               |
| P337+P317      | If eye irritation persists: Get medical help.                                                                                    |
| P332+P317      | If skin irritation occurs: Get medical help.                                                                                     |
| P319           | Get medical help if you feel unwell.                                                                                             |

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

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                     |
|------------------|-------------------------------------|
| Synonyms         | : Tetra-n-butylammonium perchlorate |
| Formula          | : C16H36ClNO4                       |
| Molecular weight | : 341.91                            |
| CAS No.          | : 1923-70-2                         |
| EC-NO.           | : 217-655-5                         |

| Component                             | Classification    | Concentration         |
|---------------------------------------|-------------------|-----------------------|
| <b>Tetrabutylammonium perchlorate</b> | no data available | electrochemical grade |

## 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. 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

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

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Tin/tin oxides

### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

no data available

## 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. Evacuate personnel to  
<br/>safe areas.<br/>

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment  
<br/>must be avoided.<br/><br/>Aldrich - 617016 Page 3 of 7

### 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

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes.Avoid inhalation of vapour or mist.

### 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.Store under inert gas.hygroscopic

### 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.

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#### 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 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.

##### 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 multi-purpose 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

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**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                 | 210 °C            |
| 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**

no data available

## 10.5 Incompatible materials

Strong oxidizing agents

## 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.- Carbon oxides, Tin/tin oxides

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

no data available

#### 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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated carcinogen by NTP. 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.

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

no data available

#### Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

#### Aspiration hazard

no data available

#### Additional Information

no data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

no data available

### 12.2 Persistence and degradability

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no data available &lt;br/&gt;

**12.3 Bioaccumulative potential**

no data available &lt;br/&gt;

**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.<br/>Very toxic to aquatic life with long lasting effects.<br/>no data available <br/><br/>

**12.6 Other adverse effects**

no data available

**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**

no data available

**SECTION 14: Transport information**
**DOT (US)**

|                                                                                |                                            |                               |
|--------------------------------------------------------------------------------|--------------------------------------------|-------------------------------|
| UN number: 1479                                                                | Packing group: II                          | Class: 5.1                    |
| Proper shipping name: OXIDIZING SOLID, N.O.S. (Tetrabutylammonium perchlorate) | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: yes |
| Environmental Hazards: yes                                                     |                                            |                               |

**IMDG**

|                                                                                |                   |            |
|--------------------------------------------------------------------------------|-------------------|------------|
| UN number: 1479                                                                | Packing group: II | EMS-No: No |
| Proper shipping name: OXIDIZING SOLID, N.O.S. (Tetrabutylammonium perchlorate) |                   |            |

**IATA**

|                                                                                |                   |            |
|--------------------------------------------------------------------------------|-------------------|------------|
| UN number: 1479                                                                | Packing group: II | Class: 5.1 |
| Proper shipping name: OXIDIZING SOLID, N.O.S. (Tetrabutylammonium perchlorate) |                   |            |

**SECTION 15: Regulatory information**

no data available

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**SECTION 16: Other information****Prepared By**

Regulatory Affairs

ALADDIN SCIENTIFIC CORPORATION

Email: QualityAssurance@aladdinsci.com

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**Revision Summary**

SDS sections updated v1

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