

# Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 02.10.2018

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**tert-Butyl Chloride**

## SECTION 1: Identification

### Product identifier

**Product name:** tert-Butyl Chloride

**Product code:** TB2000

### Recommended use of the product and restriction on use

**Relevant identified uses:** Laboratory chemicals

**Uses advised against:** Not determined or not applicable.

**Reasons why uses advised against:** Not determined or not applicable.

### Manufacturer or supplier details

**Manufacturer:**

**United States**

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

### Emergency telephone number:

**United States**

**ChemTel Inc**

+1(800)255-3924

+1(813)248-0585

## SECTION 2: Hazard(s) identification

### GHS classification:

Flammable liquids, category 2

### Label elements

#### Hazard pictograms:



**Signal word:** Danger

### Hazard statements:

H225 Highly flammable liquid and vapor

### Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/light/equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

P280 Wear protective gloves/protective clothing/eye protection/face protection

P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower

P370+P378 In case of fire: Use agents recommended in section 5 for extinction

P403+P235 Store in a well ventilated place. Keep cool

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P501 Dispose of contents and container as instructed in Section 13

**Hazards not otherwise classified:** None

### SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 507-20-0	Tert-Butyl chloride	100

**Additional Information:** None

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

Not determined or not applicable.

##### After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

##### After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

##### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

##### After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

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

##### Acute symptoms and effects:

Not determined or not applicable.

##### Delayed symptoms and effects:

Not determined or not applicable.

#### Immediate medical attention and special treatment

##### Specific treatment:

Not determined or not applicable.

##### Notes for the doctor:

Not determined or not applicable.

### SECTION 5: Firefighting measures

#### Extinguishing media

##### Suitable extinguishing media:

Use dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

##### Unsuitable extinguishing media:

Not determined or not applicable.

#### Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

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Vapors can flow to distant ignition sources and flashback  
Liquid is volatile and may generate an explosive atmosphere

#### Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing  
Refer to Section 8

#### Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols  
Avoid contact with skin, eyes and clothing

### SECTION 6: Accidental release measures

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

Ensure adequate ventilation  
Ensure air handling systems are operational  
Beware of vapors accumulating to form explosive concentrations  
Vapors can accumulate in low areas

#### Environmental precautions:

Should not be released into the environment  
Prevent from reaching drains, sewer or waterway

#### Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing  
Use spark-proof tools and explosion-proof equipment

#### Reference to other sections:

Not determined or not applicable.

### SECTION 7: Handling and storage

#### Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.  
Avoid breathing mist or vapor.  
Use only non-sparking tools.  
Take precautionary measures against electrostatic discharges.

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

Store in a cool, well-ventilated area.  
Keep container tightly sealed.  
Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.  
Store locked up.  
Use appropriate containment to avoid environmental contamination.  
Protect from freezing and physical damage.

### SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

#### Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

#### Information on monitoring procedures:

Not determined or not applicable.

#### Appropriate engineering controls:

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Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Use explosion-proof ventilation equipment.

#### Personal protection equipment

##### Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

##### Skin and body protection:

Select glove material impermeable and resistant to the substance.

##### Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

#### General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Hexane like
Odor threshold	Not determined
pH	Not determined
Melting point/freezing point	-26 °C
Initial boiling point/range	50 - 52 °C
Flash point (closed cup)	-27°C
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper flammability/explosive limit	10.1%
Lower flammability/explosive limit	1.8%
Vapor pressure	266 mbar at 15°C
Vapor density	3.20
Density	Not determined
Relative density	0.87
Solubilities	Slightly soluble in water.; Water Solubility 2880 mg/L at 15°C
Partition coefficient (n-octanol/water)	log pow: (octanol - water) 2.450
Auto/Self-ignition temperature	540°C
Decomposition temperature	Not determined
Dynamic viscosity	Not determined
Kinematic viscosity	Not determined
Explosive properties	Not determined
Oxidizing properties	Not determined

#### Other information

### SECTION 10: Stability and reactivity

#### Reactivity:

Does not react under normal conditions of use and storage.

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**Chemical stability:**

Stable under normal conditions of use and storage.

**Possibility of hazardous reactions:**

None under normal conditions of use and storage.

**Conditions to avoid:**

None known.

**Incompatible materials:**

None known.

**Hazardous decomposition products:**

None known.

### SECTION 11: Toxicological information

**Acute toxicity**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Skin corrosion/irritation**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Serious eye damage/irritation**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Respiratory or skin sensitization**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Carcinogenicity**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

**National Toxicology Program (NTP):** None of the ingredients are listed.

**Germ cell mutagenicity**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Reproductive toxicity**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Specific target organ toxicity (single exposure)**

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Specific target organ toxicity (repeated exposure)**

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**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**Information on likely routes of exposure:** No data available.

**Symptoms related to the physical, chemical and toxicological characteristics:** No data available.

**Other information:** No data available.

### SECTION 12: Ecological information

#### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

#### Chronic (long-term) toxicity

**Product data:** No data available.

**Substance data:** No data available.

#### Persistence and degradability

**Product data:** No data available.

**Substance data:** No data available.

#### Bioaccumulative potential

**Product data:** No data available.

**Substance data:** No data available.

#### Mobility in soil

**Product data:** No data available.

**Substance data:** No data available.

**Other adverse effects:** No data available.

### SECTION 13: Disposal considerations

#### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

### SECTION 14: Transport information

#### United States Transportation of dangerous goods (49 CFR DOT)

UN number	1127
UN proper shipping name	Chlorobutanes
UN transport hazard class(es)	3
Packing group	II
Environmental hazards	None
Special precautions for user	None



#### International Maritime Dangerous Goods (IMDG)

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UN number	1127
UN proper shipping name	Chlorobutanes
UN transport hazard class(es)	3
Packing group	II
Environmental hazards	None
Special precautions for user	None



### International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	1127
UN proper shipping name	Chlorobutanes
UN transport hazard class(es)	3
Packing group	II
Environmental hazards	None
Special precautions for user	None



## SECTION 15: Regulatory information

### United States regulations

**Inventory listing (TSCA):** Not determined.

**Significant New Use Rule (TSCA Section 5):** Not determined.

**Export notification under TSCA Section 12(b):** Not determined.

#### SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	Yes	No	No

**SARA Section 302 extremely hazardous substances:** Not determined.

#### SARA Section 313 toxic chemicals:

507-20-0	Tert-Butyl chloride	Not Listed
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**CERCLA:** Not determined.

**RCRA:** Not determined.

**Section 112(r) of the Clean Air Act (CAA):** Not determined.

#### Massachusetts Right to Know:

507-20-0	Tert-Butyl chloride	Listed
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#### New Jersey Right to Know:

507-20-0	Tert-Butyl chloride	Listed
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#### New York Right to Know:

507-20-0	Tert-Butyl chloride	Listed
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#### Pennsylvania Right to Know:

507-20-0	Tert-Butyl chloride	Listed
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**California Proposition 65:** None of the ingredients are listed.

## SECTION 16: Other information

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**Abbreviations and Acronyms:** None

**Disclaimer:**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**NFPA:** 0-3-0

**HMIS:** 0-3-0

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**End of Safety Data Sheet**