



# tert-Butyl Chloride CAS No 507-20-0

# MATERIAL SAFETY DATA SHEET SDS/MSDS

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

1.1 Product identifiers

Product name : tert-Butyl Chloride

CAS-No. : 507-20-0

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

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

Company : Central Drug House (P) Ltd

7/28 Vardaan House Ansari Road Daryaganj New Delhi-110002

INDIA

Telephone : +91 11 49404040

Email : <a href="mailto:care@cdhfinechemical.com">care@cdhfinechemical.com</a>

1.4 Emergency telephone number

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

#### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word

Danger Flammable

Hazard statement(s)

H225 Highly flammable liquid and vapour.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

Statements

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Synonyms : tert-Butyl chloride

Formula : C4H9Cl

Molecular weight : 92.57 g/mol

CAS-No. : 507-20-0

EC-No. : 208-066-4

No components need to be disclosed according to the applicable regulations.

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### **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. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

# 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

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

# **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

#### Suitable extinguishing media

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

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

Use water spray to cool unopened containers.

#### **SECTION 6: Accidental release measures**

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

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.

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.

#### 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).

#### 6.4 Reference to other sections

For disposal see section 13.

### **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 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.

Refrigerate before opening. hygroscopic Handle and open container with care.

Storage class (TRGS 510): Flammable liquids

#### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# 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 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**

Impervious clothing, 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 (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engine 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

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Form: liquid **Appearance** a)

Odour No data available b)

Odour Threshold No data available c)

No data available d) pΗ Melting point/freezing

point

Melting point/range: -25 °C - lit.

f) Initial boiling point and 50 - 52 °C - lit.

boiling range

Flash point -22.99 °C - closed cup g)

h) Evaporation rate No data available

Flammability (solid, gas) No data available i)

Upper/lower j) flammability or explosive limits No data available

Vapour pressure 262.6 mmHg at 20 °C k)

I) Vapour density 3.2 - (Air = 1.0)

0.842-0.844 g/mL at 20 °C m) Relative density

n) Water solubility No data available

Partition coefficient: n-0) octanol/water

log Pow: 2.4

Auto-ignition No data available

temperature

No data available

Decomposition temperature

r) Viscosity No data available No data available s) Explosive properties

No data available t) Oxidizing properties

9.2 Other safety information

> Relative vapour density 3.2 - (Air = 1.0)

#### **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

Heat, flames and sparks.

# 10.5 Incompatible materials

Strong oxidizing agents, Strong bases

# 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas Other decomposition products - No data available

In the event of fire: see section 5

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### Acute toxicity

No data available2-Chloro-2-methylpropane

#### Skin corrosion/irritation

No data available(2-Chloro-2-methylpropane)

#### Serious eye damage/eye irritation

No data available(2-Chloro-2-methylpropane)

#### Respiratory or skin sensitisation

No data available(2-Chloro-2-methylpropane)

# Germ cell mutagenicity

No data available(2-Chloro-2-methylpropane)

#### Carcinogenicity

#### Reproductive toxicity

No data available(2-Chloro-2-methylpropane)

# Specific target organ toxicity - single exposure

No data available(2-Chloro-2-methylpropane)

## Specific target organ toxicity - repeated exposure

No data available

### **Aspiration hazard**

No data available(2-Chloro-2-methylpropane)

#### Additional Information

RTECS: TX5040000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(2-Chloro-2-methylpropane)

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

No data available

# 12.2 Persistence and degradability

No data available

# 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available(2-Chloro-2-methylpropane)

#### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Other adverse effects

No data available

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

# Contaminated packaging

Dispose of as unused product.

# **SECTION 14: Transport information**

14.1 UN number

ADR/RID: 1127 IMDG: 1127 IATA: 1127

14.2 UN proper shipping name

ADR/RID: CHLOROBUTANES IMDG: CHLOROBUTANES Chlorobutanes

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

# **SECTION 16: Other information**

Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapour.

# **Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.