

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### tert-Butyl chloride, 50 ml

Print date: 14.04.2015

Product code: 9991186

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

### 1.1. Product identifier

tert-Butyl chloride, 50 ml

CAS No: 507-20-0

EC No: 208-066-4

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

#### Use of the substance/mixture

Laboratory chemicals

### 1.3. Details of the supplier of the safety data sheet

#### Seller

Company name: CONATEX-DIDACTIC Lehrmittel GmbH

Street: Im Forstgarten 1

Place: D-66459 Kirkel

Internet: www.conatex.com

#### Supplier

Company name: Carbolution Chemicals GmbH

Street: Im Stadtwald, Gebäude A1.2

Place: D-66123 Saarbrücken

Contact person: Dr. Michael Bauer

Telephone: +49 (0)681 302-71232

e-mail: michael.bauer@carbolution-chemicals.de

Internet: www.carbolution-chemicals.de

### 1.4. Emergency telephone number:

+49 (0)681 302-71232

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: F - Highly flammable

R phrases:

Highly flammable.

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Hazard categories:

Flammable liquid: Flam. Liq. 2

Hazard Statements:

Highly flammable liquid and vapour.

### 2.2. Label elements

Signal word: Danger

Pictograms: GHS02



#### Hazard statements

H225

Highly flammable liquid and vapour.

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### Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P240 Ground/bond container and receiving equipment.
- P243 Take precautionary measures against static discharge.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Sum formula: C<sub>4</sub>H<sub>9</sub>Cl

Molecular weight: 92,57

### Hazardous components

| EC No     | Chemical name                                                   | Quantity |
|-----------|-----------------------------------------------------------------|----------|
| CAS No    | Classification according to Directive 67/548/EEC                |          |
| Index No  | Classification according to Regulation (EC) No. 1272/2008 [CLP] |          |
| 208-066-4 | tert-Butyl chloride                                             | 100 %    |
| 507-20-0  | F - Highly flammable R11                                        |          |
|           | Flam. Liq. 2; H225                                              |          |

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash with plenty of water. Change contaminated clothing.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

### 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

Carbon dioxide (CO<sub>2</sub>). Foam. Extinguishing powder.

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

Combustible. Vapours may form explosive mixtures with air.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Remove all sources of ignition. Provide adequate ventilation.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Explosion hazard.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition.

- No smoking.

**Advice on storage compatibility**

Do not store together with: Material, rich in oxygen, oxidizing.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Protective and hygiene measures**

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**Eye/face protection**

Eye protection: Tightly sealed safety glasses. German Industry Norms (DIN) / European Norms (EN): DIN EN 166

**Hand protection**

Hand protection: Single-use gloves. Before using check leak tightness / impermeability. Use gloves only once. German Industry Norms (DIN) / European Norms (EN): DIN EN 374

**Skin protection**

Body protection: Lab apron. Only wear fitting, comfortable and clean protective clothing.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protective equipment: particulates filter device (DIN EN 143).

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:

liquid

Colour:

colourless

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Odour: No data available

#### Test method

pH-Value: No data available

#### Changes in the physical state

Melting point: -25 °C

Initial boiling point and boiling range: 51 °C

Sublimation point: No data available

Softening point: No data available

Flash point: -23 °C

#### Flammability

Solid: No data available

Gas: No data available

Lower explosion limits: No data available

Upper explosion limits: No data available

Ignition temperature: No data available

#### Auto-ignition temperature

Solid: No data available

Gas: No data available

Vapour pressure: 350,1 hPa

(at 20 °C)

Vapour pressure: No data available

Density (at 25 °C): 0,851 g/cm³

Water solubility: No data available

Partition coefficient: 2,4

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: 3,2

Evaporation rate: No data available

Solvent separation test: No data available

Solvent content: No data available

#### 9.2. Other information

Solid content: No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

#### 10.5. Incompatible materials

Oxidizing agents, strong.

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**10.6. Hazardous decomposition products**

No data available

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Toxicological data are not available.

**Acute toxicity**

Toxicological data are not available.

**Irritation and corrosivity**

No data available

**Sensitising effects**

No data available

**Severe effects after repeated or prolonged exposure**

No data available

**Carcinogenic/mutagenic/toxic effects for reproduction**

Due to missing data no statement can be made whether the substance fulfills the criteria of CMR categories 1 or 2. Practical experiences do not give any evidence for CMR activity of categories 1 or 2.

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**Practical experience****Observations relevant to classification**

No data available

**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

**12.5. Results of PBT and vPvB assessment**

No data available

**12.6. Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

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#### Advice on disposal

Dispose of waste according to applicable legislation.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals  
Classified as hazardous waste.

#### Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

#### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** UN1127  
**14.2. UN proper shipping name:** CHLOROBUTANES  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Limited quantity: 1 L  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

#### Other applicable information (land transport)

E2

#### Inland waterways transport (ADN)

**14.1. UN number:** UN1127  
**14.2. UN proper shipping name:** CHLOROBUTANES  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Limited quantity: 1 L

#### Other applicable information (inland waterways transport)

E2

#### Marine transport (IMDG)

**14.1. UN number:** UN1127

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**14.2. UN proper shipping name:** CHLOROBUTANES

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3

Special Provisions: -

Limited quantity: 1 L

EmS: F-E, S-D

**Other applicable information (marine transport)**

E2

### Air transport (ICAO)

**14.1. UN number:** UN1127

**14.2. UN proper shipping name:** CHLOROBUTANES

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3

Limited quantity Passenger: 1 L

IATA-packing instructions - Passenger: 353

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 364

IATA-max. quantity - Cargo: 60 L

**Other applicable information (air transport)**

E2

: Y341

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulatory information

2004/42/EC (VOC): 100 %

#### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

#### National regulatory information

Water contaminating class (D): 3 - highly water contaminating

## SECTION 16: Other information

### Relevant R-phrases (Number and full text)

11 Highly flammable.

### Relevant H- and EUH-phrases (Number and full text)

H225 Highly flammable liquid and vapour.