

# MATERIAL SAFETY DATA SHEET

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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**  
Product Number : 70675  
CAS-No. : 75-91-2

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

Identified uses : Laboratory chemicals, Manufacture of substances

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

Company : Capot Chemical Co.,Ltd.  
Joinhands Science Park, No.4028 Nanhuan Road  
Hangzhou, Zhejiang, China 310053  
Telephone : 0086-571-85586718  
Fax : 0086-571-85864795  
E-mail address : [sales@capotchem.com](mailto:sales@capotchem.com)

### 1.4 Emergency telephone number

Emergency Phone # : 0086-571-85586718

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Flammable liquids (Category 3), H226  
Self-reactive substances and mixtures; and Organic peroxides (Type C, D, ), H242  
Self-reactive substances and mixtures; and Organic peroxides (Type E, F Type G), H242  
Acute toxicity,oral (Category 1, 2), H300  
Acute toxicity,oral (Category 4), H302  
Aspiration hazard (Category 1), H304  
Acute toxicity,dermal (Category 1, 2), H310  
Acute toxicity,dermal (Category 3), H311  
Skin corrosion/irritation (Category 1A, B, C), H314  
Sensitisation, Skin (Category 1), H317  
Serious eye damage (Category 1), H318  
Acute toxicity,inhalation (Category 1, 2), H330  
Specific target organ toxicity,single exposure; Narcotic effects (Category 3), H336  
Germ cell mutagenicity (Category 2), H341  
Specific target organ toxicity, single exposure (Category 2), H371

Specific target organ toxicity, repeated exposure (Category 1), H372  
 Specific target organ toxicity, repeated exposure (Category 2), H373  
 Hazardous to the aquatic environment, long-term hazard (Category 1), H410  
 Hazardous to the aquatic environment, long-term hazard (Category 2), H411  
 For the full text of the H-Statements mentioned in this Section, see Section 16.

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

7-10-20/21/22-34-65-52/53-43-67-53-68-51/53-23-21/22

For the full text of the R-phrases mentioned in this Section, see Section 16.

## 2.2 Label elements

### Labelling according Regulation (EC) No 1272/2008

Pictogram



GHS02,GHS05,GHS06,GHS07,GHS08,GHS09

Signal word	Danger
Hazard statement(s)	
H226	Flammable liquid and vapour
H242	Heating may cause a fire
H242	Heating may cause a fire
H300	Fatal if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H336	May cause drowsiness or dizziness
H341	Suspected of causing genetic defects
H371	May cause damage to organs
H372	Causes damage to organs through prolonged or repeated exposure
H373	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233	Keep container tightly closed.
P234	Keep only in original container.
P240	Ground/bond container and receiving equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.

P264	Wash skin 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.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P320	Specific treatment is urgent (see ... on this label).
P331	Do NOT induce vomiting.
P405	Store locked up.
P410	Protect from sunlight.
Supplemental Hazard Statements None	

## 2.3 Other hazards

None

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

Synonyms :  
 Formula : C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>  
 Molecular Weight : 90.12 g/mol  
 CAS-No. : 75-91-2  
 EC-No. :

### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Tert-butyl hydroperoxide</b>			
CAS-No.	75-91-2	H311-H330-H371-H372-H373-H226-H242-H302-H311+H331-H314-H317-H341-H411-H304-H336-H410-H300-H310-H318	<= 100 %
EC-No.			

### Hazardous ingredients according to Directive 1999/45/EC

Component		Classification	Concentration
<b>Tert-butyl hydroperoxide</b>			
CAS-No.	75-91-2	7-10-20/21/22-34-65-52/53-43-67-53-68-51/53-23-21/22	<= 100 %
EC-No.			

For the full text of the H-Statements and R-Phrases 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**

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**

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**

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

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

carbon dioxide, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**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**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

**6.2 Environmental precautions**

Do not let product enter drains.

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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**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**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

Dry, sealed place.

## 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components with workplace 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**

Safety glasses with side-shields conforming to EN166 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**

impervious 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**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Colorless to light yellow liquid
<b>pH</b>	Not available
<b>Melting point</b>	-2.8 °C
<b>Boiling point</b>	37 °C (15 mmHg)
<b>Autoignition Temperature</b>	Not available
<b>Flash Point</b>	85 °F
<b>Explosion Limits: Lower</b>	Not available
<b>Explosion Limits: Upper</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Solubility in water</b>	Not available
<b>Specific Gravity/Density</b>	0.937 g/mL at 20 °C

## 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

Avoid moisture.

### 10.5 Incompatible materials

acids, Acid chlorides, Acid anhydrides, Oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

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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

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.

#### 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.

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure

no data available

#### Aspiration hazard

no data available

#### Additional Information

RTECS: Not available

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

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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and nonrecyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

### DOT (US)

UN 3109 5.2/II

### IMDG

UN 3109 5.2/II

### IATA

UN 3109 5.2/II

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## SECTION 15: Regulatory information

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

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

no data available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## SECTION 16: Other information

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

H226 Flammable liquid and vapour

H242 Heating may cause a fire

H242 Heating may cause a fire

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H304	May be fatal if swallowed and enters airways
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H373	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

**Full text of R-phrases referred to under sections 2 and 3.**

#### **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. Capot Chemical Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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