

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 3.1 Revision Date 09.11.2009

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : *tert*-Butyl hydroperoxide solution

Product Number : 19997

Brand : Aldrich

Company : Sigma-Aldrich Sp. z o.o.  
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### 2. HAZARDS IDENTIFICATION

#### Risk advice to man and the environment

May cause fire. Flammable. Harmful in contact with skin and if swallowed. Toxic by inhalation. Causes burns.

Harmful: may cause lung damage if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : TBHP

Formula :  $C_4H_{10}O_2$

CAS-No.	EC-No.	Index-No.	Classification	Concentration
<b>tert-Butyl hydroperoxide</b>				
75-91-2	200-915-7	-	O, T, R 7 - R10 - R21/22 - R23 - R34	>= 55 - <= 65 %
<b>Decane</b>				
124-18-5	204-686-4	-	Xn, R10 - R65	>= 55 %

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

### 4. 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

Take off contaminated clothing and shoes immediately. 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**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

Use water spray to cool unopened containers.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear respiratory protection. Avoid breathing vapors, 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.

**Environmental precautions**

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

**Methods for cleaning up**

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**7. HANDLING AND STORAGE****Handling**

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

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

**Storage**

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.

Recommended storage temperature: 2 - 8 °C

hygroscopic Moisture sensitive.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Personal protective equipment****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).

**Hand protection**

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

**Eye protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum).

**Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**

Form                      liquid

**Safety data**

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	43 °C - closed cup
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Density	0,808 g/cm <sup>3</sup>
Water solubility	no data available

## 10. STABILITY AND REACTIVITY

**Storage stability**

Stable under recommended storage conditions.

**Conditions to avoid**

Heat, flames and sparks.

**Materials to avoid**

Strong acids, Strong bases

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**

no data available

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

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.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Potential Health Effects

<b>Inhalation</b>	Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	Harmful if absorbed through skin. Causes skin burns.
<b>Eyes</b>	Causes eye burns.
<b>Ingestion</b>	Harmful if swallowed. Causes burns. Aspiration hazard if swallowed - can enter lungs and cause damage.
<b>Target Organs</b>	Nerves.,

## 12. ECOLOGICAL INFORMATION

#### Elimination information (persistence and degradability)

no data available

#### Ecotoxicity effects

no data available

#### Further information on ecology

no data available

## 13. DISPOSAL CONSIDERATIONS

#### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

#### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

#### ADR/RID

UN-Number: 3105 Class: 5.2 (8)

Proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (tert-BUTYL HYDROPEROXIDE)

#### IMDG

UN-Number: 3105 Class: 5.2 (8)

EMS-No: F-J, S-R

Proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (tert-BUTYL HYDROPEROXIDE)

Marine pollutant: No

#### IATA

UN-Number: 3105 Class: 5.2 (8)

Proper shipping name: Organic peroxide type D, liquid (tert-Butyl hydroperoxide)

## 15. REGULATORY INFORMATION

#### Labelling according to EC Directives

#### Hazard symbols

O	Oxidising
T	Toxic

#### R-phrases(s)

R 7	May cause fire.
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R10	Flammable.
R21/22	Harmful in contact with skin and if swallowed.
R23	Toxic by inhalation.
R34	Causes burns.
R65	Harmful: may cause lung damage if swallowed.

**S-phrase(s)**

S 3/7	Keep container tightly closed in a cool place.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
S14	Keep away from combustible material.

Hazardous components which must be listed on the label:

124-18-5	Decane
75-91-2	tert-Butyl hydroperoxide

## 16. OTHER INFORMATION

### Text of R-phrases mentioned in Section 3

R 7	May cause fire.
R10	Flammable.
R21/22	Harmful in contact with skin and if swallowed.
R23	Toxic by inhalation.
R34	Causes burns.
R65	Harmful: may cause lung damage if swallowed.

### Further information

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