

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

### 1.1 Product identifiers

Product name : Luperox® 331M80, 1,1-Bis(tert-butylperoxy)cyclohexane solution

CAS-No. : 3006-86-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

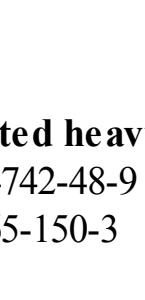
Classification according to EU Directives 67/548/EEC or 1999/45/EC

May cause fire. May cause cancer. Harmful: may cause lung damage if swallowed. Irritating to eyes, respiratory system and skin.

### 2.2 Label elements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R45 May cause cancer.

R7 May cause fire.

R36/37/38 Irritating to eyes, respiratory system and skin.

R65 Also harmful: may cause lung damage if swallowed.

S-phrase(s)

S53 Avoid exposure - obtain special instructions before use.

S 3/7 Keep container tightly closed in a cool place.

S14 Keep away from combustible material.

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.

Restricted to professional users.

### 2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Synonyms : 1,1-Bis(tert-butylperoxy)cyclohexane

Formula : C14H28O4

Component	Classification	Concentration
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**Cyclohexylidenebis[tert-butyl] peroxide**

CAS-No.	3006-86-8	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335
EC-No.	221-111-2	O, Xi, R 7R - R36/37/38

**Low boiling point modified naphtha**

CAS-No.	64741-65-7	Carc. 1B; Asp. Tox. 1; Mutagen. 1B; H304, H340, H350
		T, Carc. Cat. 2, Mut. Cat. 2, R45 - R46 - R65

**Naphtha (petroleum), hydrotreated heavy**

CAS-No.	64742-48-9	Carc. 1B; Asp. Tox. 1; Mutagen. 1B; H304, H340, H350
EC-No.	265-150-3	T, Carc. Cat. 2, Mut. Cat. 2, R45 - R46 - R65

**tert-Butyl hydroperoxide**

CAS-No.	75-91-2	Flam. Liq. 3; Acute Tox. 2; Acute Tox. 3; Acute Tox. 4;
EC-No.	200-915-7	Skin Corr. 1B; H226, H302, H311, H314, H330
		O, T, R 7 - R10 - R21/22 - R23 - R34

**Cyclohexanone**

CAS-No.	108-94-1	Flam. Liq. 3; Acute Tox. 4;
EC-No.	203-631-1	H226, H332
		Xn, R10 - R20

**tert-Butyl alcohol**

CAS-No.	75-65-0	Flam. Liq. 2; Acute Tox. 4; Eye < 0,4 %
EC-No.	200-889-7	Irrit. 2; STOT SE 3; H225, H319, H332, H335
		F, Xn, R11 - R20 - R36/37

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

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

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

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## 5. FIRE-FIGHTING 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

### 5.3 Advice for fire fighters

Wear self contained breathing apparatus for fire fighting if necessary.

### 5.4 Further information

no data available

## 6. ACCIDENTAL RELEASE MEASURES

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

Avoid breathing vapors, mist or gas.

### 6.2 Environmental precautions

Do not let product enter drains.

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

Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Normal measures for preventive fire protection.

### 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.

Recommended storage temperature: 2 - 8 °C

### 7.3 Specific end uses

no data available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

**Appropriate engineering controls**

General industrial hygiene practice.

### Personal protective equipment

**Eye/face protection**

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**

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance

Form: liquid

b) Odour

no data available

c) Odour Threshold

no data available

d) pH

no data available

e) Melting point/freezing point

Melting point/range: 65 °C

f) Initial boiling point and boiling range

no data available

g) Flash point

68,3 °C - closed cup

h) Evaporation rate

no data available

i) Flammability (solid, gas)

no data available

j) Upper/lower flammability or explosive limits

no data available

k) Vapour pressure

no data available

l) Vapour density

no data available

m) Relative density

0,891 g/cm3 at 25 °C

n) Water solubility

no data available

o) Partition coefficient: n-octanol/water

no data available

p) Autoignition temperature

no data available

q) Decomposition

no data available

r) Viscosity

no data available

s) Explosive properties

no data available

t) Oxidizing properties

no data available

u) Corrosion

no data available

v) Specific target organ toxicity - single exposure

no data available

w) Specific target organ toxicity - repeated exposure

no data available

x) Aspiration hazard

no data available

y) Potential health effects

May be harmful if inhaled. May cause respiratory tract irritation.

z) Ingestion

May be harmful if swallowed.</