

## SIGMA-ALDRICH

## MATERIAL SAFETY DATA SHEET

Date Printed: 05/24/2004  
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Version 1.4

## Section 1 - Product and Company Information

Product Name TERT-BUTYL PEROXYBENZOATE, 98%  
(LUPEROXP)  
Product Number 159042  
Brand ALDRICH  
Company Sigma-Aldrich  
Street Address 3050 Spruce Street  
City, State, Zip, Country SAINT LOUIS MO 63103 US  
Technical Phone: 314 771 5765  
Emergency Phone: 414 273 3850 Ext. 5996  
Fax: 800 325 5052

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
TERT-BUTYL PERBENZOATE	614-45-9	No

Formula C11H14O3  
Synonyms terc. Butylester kyseliny peroxybenzoove (Czech) \*  
terc. Butylperbenzoan (Czech) \* t-Butyl  
perbenzoate \* t-Butyl peroxy benzoate \* Esperox  
10 \* Novox \* Perbenzoate de butyle tertiaire  
(French) \* Trigonox C  
RTECS Number: SD9450000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Oxidizing. Harmful.

Contact with combustible material may cause fire. Harmful if  
swallowed. Irritating to eyes, respiratory system and skin.

## HMIS RATING

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

## NFPA RATING

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 3

SPECIAL HAZARD(S): Oxidizer

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

## ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is  
conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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Section 5 - Fire Fighting Measures

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FLAMMABLE HAZARDS

Pyrophoric/Autoignition: Yes

EXPLOSION HAZARDS

Container explosion may occur under fire conditions.

FLASH POINT

200 °F 93 °C Method: closed cup

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Combustible liquid. Emits toxic fumes under fire conditions. Contact with other material may cause fire.

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Section 6 - Accidental Release Measures

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PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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Section 7 - Handling and Storage

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HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.  
Store at 2-8°C

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Section 8 - Exposure Controls / PPE

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ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Government approved respirator.  
Hand: Compatible chemical-resistant gloves.  
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

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Section 9 - Physical/Chemical Properties

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Appearance	Physical State: Clear liquid Color: Slightly yellow	
Property	Value	At Temperature or Pressure
Molecular Weight	194.23 AMU	
pH	N/A	
BP/BP Range	75 - 76 °C	0.2 mmHg
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	3.36 mmHg	50 °C
Vapor Density	6.7 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	1.034 g/cm <sup>3</sup>	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	200 °F 93 °C	Method: closed cup
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	1.496	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

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Section 10 - Stability and Reactivity

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STABILITY

Stable: Stable.  
Materials to Avoid: Organic materials, Finely powdered metals.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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Section 11 - Toxicological Information

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ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed.

TOXICITY DATA

Oral

Rat

1012 mg/kg

LD50

Oral

Mouse

914 mg/kg

LD50

Remarks: Behavioral:Muscle weakness. Lungs, Thorax, or Respiration:Dyspnea. Gastrointestinal:Necrotic changes.

IRRITATION DATA

Skin

Rabbit

500 mg

24H

Remarks: Mild irritation effect

Eyes

Rabbit

100 mg

1M

Remarks: Rinsed

Eyes

Rabbit

500 mg

24H

Remarks: Mild irritation effect

CHRONIC EXPOSURE - CARCINOGEN

Species: Mouse

Route of Application: Unreported

Dose: 311 MG/KG

Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Blood:Lymphomas including Hodgkin's disease.

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Section 12 - Ecological Information

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## Section 13 - Disposal Considerations

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### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

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## Section 14 - Transport Information

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### DOT

Proper Shipping Name: Organic peroxide type C, liquid  
UN#: 3103  
Class: 5.2  
Packing Group: Packing Group II  
Hazard Label: Organic Peroxide  
PIH: Not PIH

### IATA

Proper Shipping Name: Organic peroxide type C, liquid  
IATA UN Number: 3103  
Hazard Class: 5.2

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## Section 15 - Regulatory Information

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### EU ADDITIONAL CLASSIFICATION

Symbol of Danger: O Xn  
Indication of Danger: Oxidizing. Harmful.  
R: 8 22 36/37/38  
Risk Statements: Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin.  
S: 17 26 36  
Safety Statements: Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Oxidizing. Harmful.  
Risk Statements: Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin.  
Safety Statements: Keep away from combustible material. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No  
TSCA INVENTORY ITEM: Yes

### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.  
DSL: Yes  
NDSL: No

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## Section 16 - Other Information

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### DISCLAIMER

For R&D use only. Not for drug, household or other uses.

### WARRANTY

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. Sigma-Aldrich Inc., 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. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.