



SIGMA-ALDRICH

Material Safety Data Sheet

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Version 1,80

Section 1 - Product and Company Information

Product Name *tert*-Butyl peroxybenzoate, 98%
Product Number 159042
Brand Aldrich Chemical

Company Sigma-Aldrich
Street Address 3050 Spruce Street
City, State, Zip, Country SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5832
Fax: 800-325-5052

Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
TERT-BUTYL PEROXYBENZOATE	614-45-9	No	210-382-2	

Formula C11H14O3
Synonyms *tert*-Butylester kyseliny peroxybenzoove (Czech), *tert*-Butylperbenzoan (Czech), *t*-Butylperbenzoate, *t*-Butyl peroxy benzoate, Esperox 10, Novox, Perbenzoate de butyle tertiaire (French), Trigonox CTert-Butyl Perbenzoate Iuperox p

Section 3 - Hazards Identification

Emergency Overview
Oxidizing, Irritant.
May cause fire. Irritating to 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.

Section 5 - Fire Fighting Measures

Explosion Hazards
Container explosion may occur under fire conditions.

Flash Point: 200 °F 93 °C

Autoignition Temp: 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)
Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

Section 6 - Accidental Release Measures

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.

Section 7 - Handling and Storage

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

Section 8 - Exposure Controls / PPE

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

Personal Protective Equipment
Respiratory
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.
Hand
Compatible chemical-resistant gloves.
Eye
Chemical safety goggles.

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General Hygiene Measures

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

Section 9 - Physical/Chemical Properties

Appearance			
Physical State	Color		Odor
Clear liquid	Slightly yellow		Pungent
Molecular Weight:	194.23 AMU		
Property	Value	At Temperature or Pressure	
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 ³		
Bulk Density	N/A		
Odor Threshold	N/A		
Volatile%	100 %		
VOC Content	N/A		
Water Content	N/A		
Solvent Content	N/A		
Evaporation Rate	N/A		
Viscosity	N/A		
Partition Coefficient	N/A		
Decomposition Temp.			SADT 60 °C
Flash Point °F	200 °F		Method: closed cup
Flash Point °C	93 °C		Method: closed cup
Explosion Limits	N/A		
Flammability	N/A		
Autoignition Temp	N/A		
Refractive Index	1.496		
Solubility	N/A		

N/A = not available

Section 10 - Stability and Reactivity**Stability**

Stable
Unstable.

Materials to Avoid

Reacts violently with: Strong acids, Alkali, Reducing agents, Oxidizing agents, Amines.

Hazardous Decomposition Products

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide.

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information**Route of Exposure****Skin Contact**

Causes skin irritation.

Skin Absorption

May be harmful if absorbed through the skin.

Eye Contact

May cause eye irritation.

Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion

May be harmful if swallowed.

RTECS Number: SD9450000

Toxicity Data

Oral - Rat: > 2,000 mg/kg(LD50)

Skin - Rabbit: > 2,000 mg/kg(LD50)

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

Skin - Rabbit: 0.1 ml 5 DAYS INTERMITTENT

Remarks: Moderate Irritation effect

Chronic Exposure - Carcinogen

Mouse - Unreported: 311 MG/KG

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

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations**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.

Section 14 - Transport Information**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

Section 15 - Regulatory Information

EU Additional Classification

Symbol of Danger: O XI

Indication of Danger

Oxidizing, Irritant.

Risk Statements R: 7 38

May cause fire. Irritating to skin.

Safety Statements S: 7 14 36/37/39 47

Keep container tightly closed. Keep away from combustible material. Wear suitable protective clothing, gloves, and eye/face protection. Keep at temperature not exceeding 60°C

US Classification and Label Text

Indication of Danger

Oxidizing, Irritant.

Risk Statements

May cause fire. Irritating to skin.

Safety Statements

Keep container tightly closed. Keep away from flammable liquids. Wear suitable protective clothing, gloves, and eye/face protection. Keep at temperature not exceeding 60°C

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

Section 16 - Other Information

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 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

