

SAFETY DATA SHEET

Creation Date 21-Sep-2009

Revision Date 19-Dec-2025

Revision Number 5

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name tert-Butylperoxy isopropyl carbonate, 75% solution in aromatic free mineral spirit

Cat No. : AC349840000; AC349842500

Synonyms Trigonox® BPIC

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Flammable liquids	Category 3
Organic peroxides	Type C
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Aspiration Toxicity	Category 1

Label Elements

Signal Word

Danger

Hazard Statements

Flammable liquid and vapor
Heating may cause a fire
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Keep container tightly closed
Ground and bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Keep away from clothing and other combustible materials
Keep only in original packaging
Take action to prevent static discharges
Use non-sparking tools

Skin

If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
Take off contaminated clothing and wash before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor
Do NOT induce vomiting

Fire

In case of fire: Use CO2, dry chemical, or foam to extinguish

Storage

Store locked up
Store in a well-ventilated place. Keep cool
Protect from sunlight
Store at temperatures not exceeding 4 °C/ 39 °F
Store separately

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

Unknown Acute Toxicity

No information available

3. Composition/information on Ingredients

Component	CAS No	Weight %
tert-Butyl peroxyisopropyl carbonate	2372-21-6	75
Naphtha (petroleum), hydrotreated heavy	64742-48-9	25

4. First-aid measures

General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.
Most important symptoms and effects	Difficulty in breathing. May cause allergic skin reaction. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO ₂). Dry chemical. Chemical foam. Water mist may be used to cool closed containers.
Unsuitable Extinguishing Media	No information available
Flash Point	47 °C / 116.6 °F
Method -	CC (closed cup)
Autoignition Temperature	380 °C / 716 °F
Explosion Limits	
Upper	No data available
Lower	No data available
Oxidizing Properties	Not applicable
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Acetone.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 3	Flammability 3	Instability 3	Physical hazards OX
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6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
Methods for Containment and Clean Up	Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and Storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.
Storage.	Keep in a dry place. Keep container tightly closed. Keep away from heat, sparks and flame. Refrigerator/flammables. Flammables area. Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials. Acids. Bases. Metals. Reducing Agent.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Measures	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended Filter type:	Organic gases and vapours filter. Type A. Brown. conforming to EN14387.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical State	Liquid	
Color	Colorless	
Odor	Slight	
Odor Threshold	No information available	
Property	Values	Remarks • Method
Melting Point/Range	-20 °C / -4 °F	
Softening Point	No data available	
Boiling Point/Range	No information available	
Flash Point	47 °C / 116.6 °F	Method - CC (closed cup)
Flammability (liquid)	Flammable	On basis of test data
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Autoignition Temperature	380 °C / 716 °F	
Decomposition Temperature	No data available	
Self-Accelerating Decomposition Temperature (SADT)	70 °C	
pH	Approximately neutral	
Viscosity	2.3 mPa.s at 20 °C	
Water Solubility	Immiscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
tert-Butyl peroxyisopropyl carbonate	2.5	
Vapor Pressure	No data available	
Density / Specific Gravity	0.905	
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	
Other Information		
Explosive Properties	Risk of explosion by shock, friction, fire or other sources of ignition explosive air/vapour mixtures possible	
Oxidizing Properties	Not applicable	

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Risk of explosion by shock, friction, fire or other sources of ignition.
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Do not subject to grinding/shock/friction. Exposure to light. Incompatible products.
Incompatible Materials	Acids, Bases, Metals, Reducing Agent
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Acetone
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation	Avoid breathing vapors or mists.
Ingestion	Harmful if swallowed. Potential for aspiration if swallowed. No known effect based on

**Eyes
Skin**

information supplied.
Lachrymator (substance which increases the flow of tears).
Prolonged skin contact may defat the skin and produce dermatitis.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
tert-Butyl peroxyisopropyl carbonate	-	LD50 > 2000 mg/kg (Rat)	-
Naphtha (petroleum), hydrotreated heavy	LD50 > 6000 mg/kg (Rat)	LD50 > 5000 mg/kg (Rabbit)	LC50 > 8500 mg/m ³ (Rat) 4 h

Toxicologically Synergistic Products

No information available

(b) skin corrosion/irritation;

Category 2

(c) serious eye damage/irritation;

Category 2

(d) respiratory or skin sensitization;

**Respiratory
Skin**

No data available
Category 1

May cause sensitization by skin contact

(e) germ cell mutagenicity;

No data available

Mutagenic effects have occurred in experimental animals

(f) carcinogenicity;

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
tert-Butyl peroxyisopropyl carbonate	2372-21-6	Not listed				
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Not listed				

(g) reproductive toxicity;

No data available

(h) STOT-single exposure;

No data available

(i) STOT-repeated exposure;

No data available

Target Organs

No information available.

(j) aspiration hazard;

Category 1

Other Adverse Effects

The toxicological properties have not been fully investigated.

Symptoms / effects,both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
tert-Butyl peroxyisopropyl carbonate	Not listed	0.314 mg/l EC50 (48h)	Not listed	Not listed
Naphtha (petroleum), hydrotreated heavy	Not listed	LC50: = 2200 mg/L, 96h (Pimephales promelas)	Not listed	Not listed

Persistence and Degradability Immiscible with water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

Component	log Pow
tert-Butyl peroxyisopropyl carbonate	2.5

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3103
Proper Shipping Name ORGANIC PEROXIDE TYPE C, LIQUID
Technical Shipping Name tert-Butyl peroxyisopropyl carbonate ,Naphtha (petroleum), hydrotreated heavy
Hazard Class 5.2
Packing Group II

TDG

UN-No UN3103
Proper Shipping Name ORGANIC PEROXIDE TYPE C, LIQUID
Technical Shipping Name tert-Butyl peroxyisopropyl carbonate ,Naphtha (petroleum), hydrotreated heavy
Hazard Class 5.2
Packing Group II

IATA

UN-No UN3103
Proper Shipping Name Organic peroxide type C, liquid (Mixture)
Technical Shipping Name tert-Butyl peroxyisopropyl carbonate ,Naphtha (petroleum), hydrotreated heavy
Hazard Class 5.2
Packing Group II

IMDG/IMO

UN-No UN3103
Proper Shipping Name Organic peroxide type C, liquid (Mixture)
Technical Shipping Name tert-Butyl peroxyisopropyl carbonate ,Naphtha (petroleum), hydrotreated heavy
Hazard Class 5.2
Packing Group II

15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
tert-Butyl peroxyisopropyl carbonate	2372-21-6	X	ACTIVE	-
Naphtha (petroleum), hydrotreated heavy	64742-48-9	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
tert-Butyl peroxyisopropyl carbonate	2372-21-6	X	-	219-143-7	X	X	X	X	X	KE-04752
Naphtha (petroleum), hydrotreated heavy	64742-48-9	X	-	265-150-3	X	-		X	X	KE-25622

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
 Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
tert-Butyl peroxyisopropyl carbonate	2372-21-6	-	-	-
Naphtha (petroleum), hydrotreated heavy	64742-48-9	-	Use restricted. See entry 28. (see link for restriction details) Use restricted. See entry 29. (see link for restriction details) Use restricted. See entry 75. (see link for restriction details)	-

REACH links
<https://echa.europa.eu/substances-restricted-under-reach>

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
tert-Butyl peroxyisopropyl carbonate	2372-21-6	Not applicable	Not applicable	Not applicable	Not applicable
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
 Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Seveso III Directive (2012/18/EC) - Qualifying Quantities	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

		for Major Accident Notification	for Safety Report Requirements		
tert-Butyl peroxyisopropyl carbonate	2372-21-6	Not applicable	Not applicable	Not applicable	Not applicable
Naphtha (petroleum), hydrotreated heavy	64742-48-9	2500 tonne	25000 tonne	Not applicable	Not applicable

16. Other Information

Prepared By	Product stewardship (Regulatory Affairs) Thermo Fisher Scientific email - begel.sdsdesk@thermofisher.com
Creation Date	21-Sep-2009
Revision Date	19-Dec-2025
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Revision Summary	Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS