

SAFETY DATA SHEET

Creation Date 26-Apr-2011

Revision Date 19-Dec-2025

Revision Number 6

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-Butyl peroxyacetate, 50% solution in aromatic free mineral spirit

Cat No. : AC349860000; AC349860100; AC349862500

Synonyms Trigonox[®]4 F

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
Acute Inhalation Toxicity - Vapors	Category 3
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Aspiration Toxicity	Category 1

Label Elements

Signal Word

Danger

Hazard Statements

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



Precautionary Statements

Prevention

Wear protective gloves/protective clothing/eye protection/face protection
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
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
Keep cool
Take action to prevent static discharges
Use non-sparking tools

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor

Skin

If skin irritation or rash occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF ON SKIN: Wash with plenty of soap and water

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
Keep at temperatures between 10 °C and 30 °C.
Do not freeze
Store separately

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

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

No information available

3. Composition/information on Ingredients

Component	CAS No	Weight %
tert-Butyl peroxyacetate	107-71-1	50
Naphtha (petroleum), hydrotreated heavy	64742-48-9	50

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Immediate medical attention is required. Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Risk of serious damage to the lungs (by aspiration).
Ingestion	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	43 °C / 109.4 °F
Method -	No information available
Autoignition Temperature	400 °C / 752 °F
Explosion Limits	
Upper	No data available
Lower	No data available
Oxidizing Properties	Oxidizer
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Flammable. Oxidizer: Contact with combustible/organic material may cause fire. Vapors may travel to source of ignition and flash back. May ignite combustibles (wood paper, oil, clothing, etc.). Containers may explode when heated. Vapors may form explosive mixtures with air.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Organic acids. 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

6. Accidental release measures

Personal Precautions

Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Remove all sources of ignition.

Environmental Precautions

See Section 12 for additional Ecological Information. Should not be released into the environment.

Methods for Containment and Clean Up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and Storage

Handling

Wear personal protective equipment/face protection. Avoid contact with skin and eyes. Ensure adequate ventilation. Use spark-proof tools and explosion-proof equipment. Use only non-sparking tools. Do not subject to grinding/shock/friction. Keep away from clothing and other combustible materials. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.

Storage.

Keep in a dry place. Keep container tightly closed. Keep away from heat, sparks and flame. Do not store near combustible materials. Refrigerator/flammables. Keep at temperatures between 10 °C and 30 °C. Do not freeze. Incompatible Materials. Acids. Bases. Metals. Reducing Agent. Strong reducing agents. Combustible material.

8. Exposure controls / personal protection

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.

Engineering Measures

Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

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	pungent	
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	43 °C / 109.4 °F	Method - No information available
Flammability (liquid)	Flammable	On basis of test data
Flammability (solid,gas)	Not applicable	Liquid
Explosion Limits	No data available	
Autoignition Temperature	400 °C / 752 °F	
Decomposition Temperature	No data available	
Self-Accelerating Decomposition Temperature (SADT)	70°C	
pH	No information available	
Viscosity	No data available	
Water Solubility	Immiscible	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Component	log Pow	
tert-Butyl peroxyacetate	1.6	
Vapor Pressure	No data available	
Density / Specific Gravity	0.820	
Bulk Density	Not applicable	Liquid
Vapor Density	No data available	(Air = 1.0)
Particle characteristics	Not applicable (liquid)	
Other Information		
Molecular Formula	C6 H12 O3	
Molecular Weight	132.16	
Explosive Properties	explosive air/vapour mixtures possible	
Oxidizing Properties	Oxidizer	

10. Stability and reactivity

Reactive Hazard	Yes
Stability	Organic peroxide. Hazardous decomposition may occur. Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition. Incompatible products. Combustible material. Excess heat.
Incompatible Materials	Acids, Bases, Metals, Reducing Agent, Strong reducing agents, Combustible material
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Organic acids, Acetone
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation	May cause irritation of respiratory tract. Aspiration into lungs can produce severe lung damage.
Ingestion	May be fatal if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. Harmful if swallowed. Potential for aspiration if swallowed.
Eyes	Lachrymator (substance which increases the flow of tears). Irritating to eyes.
Skin	May cause sensitization by skin contact. May cause irritation.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
tert-Butyl peroxyacetate	LD50 = 675 mg/kg (Rat)	LD50 = 4000 mg/kg (Rabbit) LD50 = 5657 mg/kg (Rabbit)	LC50 = 450 ppm (Rat) 8 h
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
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(b) skin corrosion/irritation;	No data available
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(c) serious eye damage/irritation;	Category 2
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(d) respiratory or skin sensitization;	
Respiratory	No data available
Skin	Category 1
	May cause sensitization by skin contact

(e) germ cell mutagenicity;	No data available
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(f) carcinogenicity;	The table below indicates whether each agency has listed any ingredient as a carcinogen
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Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
tert-Butyl peroxyacetate	107-71-1	Not listed	Not listed	Not listed	Not listed	Not listed
Naphtha (petroleum), hydrotreated heavy	64742-48-9	Not listed	Not listed	Not listed	Not listed	Not listed

(g) reproductive toxicity;	No data available
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(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. See actual entry in RTECS for complete information
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. See actual entry in RTECS for complete information.
Endocrine Disrupting Properties	This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Naphtha (petroleum), hydrotreated heavy	Not listed	LC50: = 2200 mg/L, 96h (Pimephales promelas)	Not listed	Not listed

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

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

Component	log Pow
tert-Butyl peroxyacetate	1.6

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 peroxyacetate, 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 peroxyacetate, Naphtha (petroleum), hydrotreated heavy
Hazard Class	5.2

Packing Group	II
IATA	
UN-No	UN3103
Proper Shipping Name	Organic peroxide type C, liquid
Technical Shipping Name	tert-Butyl peroxyacetate, Naphtha (petroleum), hydrotreated heavy
Hazard Class	5.2
IMDG/IMO	
UN-No	UN3103
Proper Shipping Name	ORGANIC PEROXIDE TYPE C, LIQUID
Technical Shipping Name	tert-Butyl peroxyacetate, Naphtha (petroleum), hydrotreated heavy
Hazard Class	5.2

15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
tert-Butyl peroxyacetate	107-71-1	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/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
tert-Butyl peroxyacetate	107-71-1	X	-	203-514-5	X	X	X	X	X	KE-04348
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

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
tert-Butyl peroxyacetate	X	X	X	-	X

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 peroxyacetate	107-71-1	-	-	-
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 peroxyacetate	107-71-1	Listed	Not applicable	Not applicable	Not applicable
Naphtha (petroleum),	64742-48-9	Listed	Not applicable	Not applicable	Not applicable

hydrotreated heavy					
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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 for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
tert-Butyl peroxyacetate	107-71-1	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
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Creation Date 26-Apr-2011
Revision Date 19-Dec-2025
Print Date 19-Dec-2025
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