

Material Safety Data Sheet

tert-Butyl peroxybenzoate, 98%

ACC# 09769

Section 1 - Chemical Product and Company Identification

MSDS Name: tert-Butyl peroxybenzoate, 98%

Catalog Numbers: AC170140000, AC170140050, AC170142500

Synonyms: tert-Butyl perbenzoate; Benzenecarboxoperoxoic acid, 1,1-dimethylethyl ester; Peroxybenzoic acid, t-butyl ester; Trigonox C; TBPB; Polymerization initiator.

Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
614-45-9	tert-Butyl peroxybenzoate	98	210-382-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless to pale yellow liquid. Flash Point: > 60 deg C.

Danger! Organic peroxide. Heat or contamination may cause hazardous decomposition. Peroxides and decomposition products are flammable and can ignite with explosive force if confined. Causes eye, skin, and respiratory tract irritation. **Combustible liquid and vapor.**

Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. Prolonged exposure may produce blisters. Not expected to cause an allergic skin reaction.

Ingestion: May cause irritation of the digestive tract. May cause nausea and vomiting. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Combustible liquid. Runoff to sewer may create fire or explosion hazard. Evacuate unnecessary personnel. Peroxides and decomposition products are flammable and can ignite with explosive force if confined. This product can produce flammable vapors which may travel to a source of ignition and flash back.

Extinguishing Media: Use water fog or spray, dry chemical, foam or carbon dioxide.

Flash Point: > 60 deg C (> 140.00 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 3; Special Hazard: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide

ventilation. A vapor suppressing foam may be used to reduce vapors. Evacuate unnecessary personnel. Approach spill from upwind. If permitted to enter sewers, this material may create a fire or explosion hazard.

Section 7 - Handling and Storage

Handling: Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep away from heat and flame. Do not use air pressure to empty containers.

Storage: Keep away from heat, sparks, and flame. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents. Store in explosion-proof refrigerator. Keep away from acidic, alkaline, combustible and oxidizing materials. To insure product quality, storage temperature should not exceed 25°C. To insure against possible exothermic self-accelerating decomposition, storage temperature must not exceed 55°C (derived from the SADT of 60°C).

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
tert-Butyl peroxybenzoate	none listed	none listed	none listed

OSHA Vacated PELs: tert-Butyl peroxybenzoate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: 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.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: clear, colorless to pale yellow

Odor: aromatic odor

pH: Not available.

Vapor Pressure: 0.33 mm Hg @ 50 deg C

Vapor Density: 6.7 (air=1)

Evaporation Rate: Not available.

Viscosity: 6.5 mPa 20 deg C

Boiling Point: 75-76 deg C @ 0.2 mm Hg

Freezing/Melting Point: 8 deg C

Decomposition Temperature: 55 deg C

Solubility: Insoluble.

Specific Gravity/Density: 1.02 g/ml @ 20°C

Molecular Formula: C₁₁H₁₄O₃

Molecular Weight: 194.23

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by direct contact with incompatible substances or by thermal decomposition at and above the SADT (see Section 16).

Conditions to Avoid: Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents, strong acids, strong bases, heavy metals.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 614-45-9: SD9450000

LD50/LC50:

CAS# 614-45-9:

Draize test, rabbit, eye: 500 mg/24H Mild;

Draize test, rabbit, eye: 0.05 mL;

Draize test, rabbit, skin: 500 mg/24H Mild;

Draize test, rabbit, skin: 0.1 mL/4H Mild;

Draize test, rabbit, skin: 0.1 mL/5D (Intermittent) Moderate;

Oral, mouse: LD50 = 914 mg/kg;

Oral, mouse: LD50 = 914 mg/kg;

Oral, rat: LD50 = 1012 mg/kg;

Oral, rat: LD50 = 1012 mg/kg;

Carcinogenicity:

CAS# 614-45-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: Terrestrial: Low mobility in soil and is not likely to leach. Aquatic: Expected to absorb to sediment and suspendend particulates. Atmospheric: Exist mainly in vapor phase with a half-life of 7 days. Bioconcentration in aquatic life is moderate.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	ORGANIC PEROXIDE TYPE C, LIQUID	ORGANIC PEROXIDE TYPE C
Hazard Class:	5.2	5.2
UN Number:	UN3103	UN3103
Packing Group:	II	II
Additional Info:		LIQUID

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 614-45-9 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 614-45-9: immediate, fire, reactive.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

CAS# 614-45-9 is considered highly hazardous by OSHA.

STATE

CAS# 614-45-9 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

XI E

Risk Phrases:

R 2 Risk of explosion by shock, friction, fire or other sources of ignition.
R 38 Irritating to skin.
R 7 May cause fire.

Safety Phrases:

S 17 Keep away from combustible material.
S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 614-45-9: No information available.

Canada - DSL/NDSL

CAS# 614-45-9 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of C, D2B, F, B3.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information
--

MSDS Creation Date: 9/22/1998

Revision #3 Date: 11/11/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.