

1 PRODUCT AND COMPANY IDENTIFICATION**Organic Peroxides**

2000 Market Street

Philadelphia, Pa 19103

Information Telephone Numbers

Customer Service

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887

Medical: Rocky Mountain Poison Control Center

(303) 623-5716 (24Hrs)

Phone Number

1-800-558-5575

Available Hrs

Business Hours

Product Name LUPEROX P
Product Synonym(s) Formerly T-BUTYL PERBENZOATE
Chemical Family Organic Peroxide - Peroxyester
Chemical Formula
Chemical Name t-Butyl Peroxybenzoate
EPA Reg Num
Product Use Polymerization Initiator

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
tert-Butyl peroxybenzoate	614-45-9	98	Y
Impurities including:			N
Di-tert-butyl peroxide	110-05-4	< 0.2	N
tert-Butyl hydroperoxide	75-91-2	< 0.2	N

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation.

The components of this product are either on the TSCA Inventory list or exempt as impurities.

3 HAZARDS IDENTIFICATION**Emergency Overview**

Yellow liquid; Unpleasant, pungent odor

DANGER!**ORGANIC PEROXIDE****MAY CAUSE SKIN IRRITATION.****Potential Health Effects**

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be slightly toxic if swallowed or absorbed through skin, practically non-toxic if inhaled, slightly irritating to eyes and moderately irritating to skin.

4 FIRST AID MEASURES

IN CASE OF CONTACT, flush the area with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops and persists. Thoroughly clean shoes before reuse.

IF SWALLOWED, induce vomiting as directed by medical personnel. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air.

5 FIRE FIGHTING MEASURES**Fire and Explosive Properties**

Auto-Ignition Temperature	NE		
Flash Point	89 C / 192 F	Flash Point Method	Seta CC
Flammable Limits- Upper	NE		
Lower	NE		

Extinguishing Media

Use water spray, foam or dry chemical.

Fire Fighting Instructions

Fight fire with large amounts of water from a safe distance. Use water spray to cool containers exposed to fire. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use. After a fire, wait until the material has cooled to room temperature before initiating clean up activities.

Fire and Explosion Hazards

Contact with incompatible materials or exposure to temperatures exceeding the SADT may result in a self accelerating decomposition reaction with release of flammable vapors which may autoignite.

6 ACCIDENTAL RELEASE MEASURES**In Case of Spill or Leak**

Use inert, non-combustible absorbant material. Sweep or scoop up using non-sparking tools. Wet down and dispose of immediately. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7 HANDLING AND STORAGE

7 HANDLING AND STORAGE**Handling**

Contact with incompatible materials or exposure to temperatures exceeding SADT (See Section (9)) may result in a self accelerating decomposition reaction with release of flammable vapors which may autoignite. Keep away from heat sparks and flame. Avoid contamination. Use only with adequate ventilation. Use explosion proof equipment. Keep container closed. Do not reuse container as it may retain hazardous product residue. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage

Store below 38 C/100 F to maintain stability and active oxygen content. Detached storage is preferred. Store out of direct sunlight in a cool well-ventilated place. Store away from combustibles and incompatible materials. Refer also to National Fire Protection Agency (NFPA) Code 432, Code for the Storage of Organic Peroxide Formulations. Exercise EXTREME caution if product is stored in a heated area.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering Controls**

Investigate engineering techniques to reduce exposures. Provide ventilation if necessary to minimize exposures. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Use good industrial practice to avoid eye contact.

Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Respiratory Protection

Avoid breathing vapor or mist. Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

The components of this product have no established Airborne Exposure Guidelines

- Only those components with exposure limits are printed in this section.
- Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
- ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.
- WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Yellow liquid; Unpleasant, pungent odor
pH	NE
Specific Gravity	1.042 @ 25/25 C
Vapor Pressure	7.6 mm Hg @ 30 C
Vapor Density	6.7
Melting Point	8.5 C (subcools)
Freezing Point	NE
Boiling Point	NA
Solubility In Water	Insoluble
Evaporation Rate	NE
Percent Volatile	100
SADT	60 C/140 F (HAST)

This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this MSDS for specified conditions.

SADT - Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generated a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

Other Physical Data

Active Oxygen Content = 8.07% min.

10 STABILITY AND REACTIVITY**Stability**

This material is chemically unstable and should only be handled under specified conditions. See HANDLING AND STORAGE section of this MSDS for specified conditions.

SADT - Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generated a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm (heat spike from increasing decomposition rate) to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio to heat transfer area to volume of product.

Hazardous Polymerization

Does not occur.

Incompatibility

Contact with foreign materials, such as, strong acids, alkalis, oxidizers, reducing agents, amines, and promoters/accelerators may result in a violent decomposition reaction or in product degradation.

Hazardous Decomposition Products

Temperatures at or above the SADT can result in the release of hazardous decomposition products which are flammable and may autoignite.

11 TOXICOLOGICAL INFORMATION**Toxicological Information**

Data on this material and/or its components are summarized below.

t-Butyl Peroxybenzoate

Single exposure (acute) studies indicate that this material is slightly toxic if swallowed (rat LD50 3,639-4,838 mg/kg) or absorbed through skin (rabbit LD50 3,817 mg/kg), practically non-toxic if inhaled (rat 4-hr LC50 >200 mg/l), slightly irritating to rabbit eyes (7.0/110) and moderately irritating to rabbit skin (3.7/8.0).

No skin allergy was observed in guinea pigs following repeated exposure. Repeated oral exposure produced no systemic toxicity in rats and mice. No genetic changes were observed in tests using bacteria or animals; however, changes were observed in animals.

12 ECOLOGICAL INFORMATION**Ecotoxicological Information**

This material is moderately non-toxic to guppies (96-hr LC50 8.6 mg/l; semi-static; a fine layer of test substance was visible on the surface of the water at all tests concentrations).

Chemical Fate Information

This material is readily biodegradable in a closed bottle test. An EC50 of 43 mg/l was reported in an activated sludge respiration inhibition test.

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Dispose of in accordance with federal, state and local regulations. Dilution followed by incineration is the preferred method. Dilution ratio of 10:1 in a clean, compatible, combustible solvent (i.e., Fuel Oil #2, mineral oil) will reduce reactivity hazard during incineration and transportation.

14 TRANSPORT INFORMATION

DOT Name	Organic Peroxide Type C, Liquid
DOT Technical Name	[tert-Butyl peroxybenzoate, >77-100%]
DOT Hazard Class	5.2
UN Number	UN3103
DOT Packing Group	PG II
RQ	

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	Y
Delayed (Chronic) Health	N	Reactive	Y
		Sudden Release of Pressure	N

The components of this product are either on the TSCA Inventory list or exempt as impurities.

Ingredient Related Regulatory Information:

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Di-tert-butyl peroxide	100 LBS	
tert-Butyl hydroperoxide	100 LBS	
tert-Butyl peroxybenzoate	100 LBS	

Massachusetts Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

- Di-tert-butyl peroxide
- tert-Butyl hydroperoxide
- tert-Butyl peroxybenzoate

New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

- Di-tert-butyl peroxide
- tert-Butyl hydroperoxide
- tert-Butyl peroxybenzoate

Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

- Di-tert-butyl peroxide
- tert-Butyl hydroperoxide

Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.
tert-Butyl peroxybenzoate

16 OTHER INFORMATION**Revision Information**

Revision Date 07 MAR 2002 Revision Number 5
Supersedes Revision Dated 27-SEP-2001

Revision Summary

Section 9: SADT updated

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark

Miscellaneous

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