1 PRODUCT AND COMPANY IDENTIFICATION

Organic Peroxides
2000 Market Street

Philadelphia, Pa 19103

EMERGENCY PHONE NUMBERS:
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(303) 623-5716 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service	1-800-558-5575	Business Hours

Product Name LUPEROX 233M75
Product Synonym(s)

Chemical Family
Chemical Formula
Chemical Name
EPA Reg Num
Product Use

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical Wt. %	OSHA
Butanoic acid, 3,3-bis((1,1-dimethylethyl)dioxy)-, ethyl ester	55794-20-2	75	Y
Petroleum distillate	64742-48-9	< 25	Y
Odorless mineral spirits	64741-65-7	< 25	Y
Impurities including:			N
tert-Butyl hydroperoxide	75-91-2	< 1	N
t-Butyl alcohol	75-65-0	< 0.5	N

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA 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
colorless liquid

WARNING!
ORGANIC PEROXIDE
MAY CAUSE SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE 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 concidered to be no more than slightly toxic if swallowed or absorbed through skin and slightly irritating to eyes and 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, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If breathing is difficult, get medical attention.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature	NE		
Flash Point	61 C/142 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

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. Avoid breathing vapor or mist.

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.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

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

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

Exposure Limit		Value
t-Butyl alcohol		
ACGIH TWA	-	100 ppm 303 mg/m3
OSHA TWA PEL	-	100 ppm 300 mg/m3

-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.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	colorless liquid
pH	NE
Specific Gravity	0.909 @ 25 C
Vapor Pressure	NE
Vapor Density	NE
Melting Point	4.5 C (40 F)
Freezing Point	NE
Boiling Point	NE
Solubility In Water	NE
SADT	80 C/176 F (35 lb ctn.)

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 = 8.21 % 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, and oxidizers 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.

Butanoic acid, 3,3-bis((1,1-dimethylethyl)dioxy)-, ethyl ester
Single exposure (acute) studies indicate that this material is no more than slightly toxic if swallowed (rat LD50 >5,000 mg/kg) or absorbed through skin (LD50 >2,000 mg/kg) and slightly irritating to rabbit eyes (8.1/110) and skin (4-hr exposure, 2.55/8.0).

Odorless Mineral Spirits
Single exposure (acute) studies indicate that this material is practically non-toxic if swallowed (rat LD50 >10,000 mg/kg), no more than slightly toxic if absorbed through skin (rabbit LD50 >3,160 mg/kg) or inhaled (rat 4-hr LC50 >12.2 mg/l or >592 ppm), slightly irritating to rabbit eyes and moderately irritating to rabbit skin.

No skin allergy was observed in humans following repeated exposure, although skin irritation was noted. No symptoms associated with solvent exposure were noted by human volunteers exposed to 100 ppm oof this material for 6 hours. Repeated inhalation studies in rats produced kidney tubule damage in male rats only indicative of hydrocarbon nephropathy, but extensive studies have demonstrated that these effects occur only in male rats and are not relevant to humans. Repeated skin application of one type of this material has produced skin tumors in mice. These solvents have not been shown to be developmental toxicants, and generally produced no genetic changes in standard tests using bacteria and animals.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

No data are available.

Chemical Fate Information

No data are available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Dispose of in accordance with federal, state and local regulations. Dilution followed by incineration is the preferred method. Dilution ration 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 D, Liquid
DOT Technical Name	[Ethyl 3,3-Di(tert-butylperoxy) Butyrate, <=77%]
DOT Hazard Class	5.2
UN Number	3105
DOT Packing Group	PG II
RQ	

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title IIII 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
Petroleum distillate	NE	
t-Butyl alcohol	100 LBS	
tert-Butyl hydroperoxide	100 LBS	
Butanoic acid, 3,3-bis((1,1-dimethylethyl)dioxy)-, ethyl ester	NE	
Odorless mineral spirits	NE	

SARA Title III, Section 313

This product does contain chemical(s) which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Ammendments and Reauthorization Act of 986 and 40 CFR Part 372. See Section 2

t-Butyl alcohol

Massachusetts Right to Know

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

t-Butyl alcohol
tert-Butyl hydroperoxide

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.

t-Butyl alcohol
tert-Butyl hydroperoxide

Pennsylvania Environmental Hazard

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

t-Butyl alcohol

Pennsylvania Right to Know

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

t-Butyl alcohol
tert-Butyl hydroperoxide

16 OTHER INFORMATION

Revision Information

Revision Date	16 JUN 2000	Revision Number 2
Supercedes Revision Dated	15-JUL-1999	

Revision Summary

The manufacturer has changed its name from Elf Atochem North America, Inc. to ATOFINA Chemicals, Inc.

Key

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