



LUPEROX TBIC M75

Material Safety Data Sheet

Arkema Inc.

1 PRODUCT AND COMPANY IDENTIFICATION

Functional Additives

2000 Market Street
21st Floor
Philadelphia, PA 19103-3222

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service Number	(800) 331-7654	8:00 AM - 5:00 PM EST

Product Name LUPEROX TBIC M75

Product Synonym(s)

Chemical Family

Chemical Formula Organic Peroxide - Peroxyester

Chemical Name

EPA Reg Num

Product Use Polymerization Initiator

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
t-Butyl alcohol	75-65-0	< 0.4	N
Isopropanol	67-63-0	< 0.5	N
tert-Butyl hydroperoxide	75-91-2	< 0.5	N
Impurities including:			N
Petroleum distillate	64742-48-9	< 25	Y
Odorless mineral spirits	64741-65-7	< 25	Y
Carbonperoxoic acid, OO-(1,1-dimethylethyl) O-(1-methylethyl) ester	2372-21-6	75	Y

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

Colorless liquid, pungent odor

DANGER!

ORGANIC PEROXIDE

CAUSES SKIN IRRITATION.

MAY CAUSE ALLERGIC SKIN REACTION.

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 considered to be no more than slightly toxic if swallowed or absorbed through skin, slightly irritating to eyes and severely irritating to skin. Repeated exposure may cause an allergic skin reaction. Prolonged or repeated contact removes oils from the skin and may dry skin and cause irritation, redness and rash. High vapor concentrations may be irritating to the eyes and respiratory tract, and may result in central nervous system (CNS) effects such as headache, dizziness, nausea, drowsiness and, in severe exposures, loss of consciousness and death. Mild to severe lung injury may occur if this material is drawn into the lungs (aspirated) during swallowing, or during vomiting after swallowing. Symptoms of injury may include increased breathing and heart rate, coughing and related signs of respiratory distress.

4 FIRST AID MEASURES

IN CASE OF CONTACT, immediately flush the area with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.

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

Flash Point

Flash Point Method

Flammable Limits- Upper

Lower

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 such as sodium bicarbonate, sodium carbonate, calcium carbonate, clean sand or non-acidic clay directly on the spilled peroxide, then wet down (dampen) the mixture with water. Sweep or scoop up using non-sparking tools and place into a polyethylene bag for disposal. The

6 ACCIDENTAL RELEASE MEASURES

sweepings should be wetted down further with water. Dispose of immediately. After all of the material has been collected, wash down the area with detergent and water. 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 explosion proof equipment. 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. Keep container closed. Use only with adequate ventilation.

Storage

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. To maintain stability and active oxygen content, store below 100 F, preferably between 65-85 F.

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

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.

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 chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. 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



LUPEROX TBIC M75

Material Safety Data Sheet

Arkema Inc.

Exposure Limit		Value
Isopropanol		
ACGIH STEL	-	400 ppm
ACGIH TWA	-	200 ppm
OSHA TWA PEL	-	400 ppm 980 mg/m3
t-Butyl alcohol		
ACGIH TWA	-	100 ppm
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.

-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	Colorless liquid, pungent odor
pH	NE
Specific Gravity	0.866 @ 25/25 C
Vapor Pressure	NE
Vapor Density	NE
Melting Point	5 C
Freezing Point	NE
Boiling Point	NE
Solubility In Water	Insoluble
SADT	60 C/140 F (5 gal 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.

10 STABILITY AND REACTIVITY**Stability**

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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.

Luperox TBIC M75

Single exposure (acute) studies indicate that this material is no more than slightly toxic if swallowed (rat LD50 >2,000 mg/kg) or absorbed through skin (rat LD50 >2,000 mg/kg), severely irritating to rabbit skin (4-hr exposure to 50% in odorless mineral spirits; 5.33/8.0) and slightly irritating to rabbit eyes (6.6/110.0).

Skin allergy was observed in guinea pigs following repeated exposure. Genetic changes were observed in tests using bacteria, but not in tests using animals.

Petroleum distillate/Odorless mineral spirits

Single exposure (acute) studies indicate that this material is practically non-toxic if swallowed (rat LD50 >5,000 mg/kg), no more than slightly toxic if absorbed through skin (rabbit LD50 >3,160 mg/kg) or inhaled (rat 4-hr LC0 12.2 mg/l [592 ppm]), slightly irritating to rabbit eyes and moderately irritating to rabbit skin.

No skin allergy was observed in guinea pigs or humans following repeated exposure, although skin irritation was noted. Human volunteers exposed to 100 ppm for 6 hours noted no symptoms associated with exposure. 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 inhalation exposure in dogs produced no adverse effects. Repeated skin application of these types of materials has produced skin tumors in mice. No birth defects were observed in the offspring of rats following inhalation exposure during pregnancy. No genetic changes were observed in tests using bacteria, animal cells or 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 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-Butylperoxy isopropylcarbonate, <=77%]
DOT Hazard Class	5.2
UN Number	UN 3103
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
Isopropanol	NE	NE
Petroleum distillate	NE	
t-Butyl alcohol	NE	NE
tert-Butyl hydroperoxide	NE	NE
Carbonoperoxoic acid, OO-(1,1-dimethylethyl) O-(1-methylethyl) 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 Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. See Section 2

Isopropanol

t-Butyl alcohol

Massachusetts Right to Know

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

Isopropanol

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.

Carbonoperoxoic acid, OO-(1,1-dimethylethyl) O-(1-methylethyl) ester

Isopropanol

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.

Isopropanol

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.

Isopropanol

t-Butyl alcohol

tert-Butyl hydroperoxide

16 OTHER INFORMATION

Revision Information

Revision Date 02 JAN 2007 Revision Number 8
Supercedes Revision Dated 02-JAN-2007

Revision Summary

This product has been moved to the Functional Additives business unit.

Key

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



LUPEROX TBIC M75

Material Safety Data Sheet

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