1 PRODUCT AND COMPANY IDENTIFICATION

Functional Additives
2000 Market Street
28th 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 F40M-SP
Product Synonym(s)	
Chemical Family	Organic Peroxide - Dialkyl
Chemical Formula	
Chemical Name	
EPA Reg Num	
Product Use	Polymerization Initiator

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Anti-oxidizing agent	Proprietary	<5	Y
Silica gel	112926-00-8	<30	Y
Ethylene-propylene copolymer	9010-79-1	<40	Y
Calcium carbonate	471-34-1	<30	Y
alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)	25155-25-3	> 40	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
Slightly yellow pellets

WARNING!
ORGANIC PEROXIDE
MAY CAUSE RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on its composition, it is anticipated to be practically non-toxic if swallowed, no more than moderately toxic if inhaled and slightly irritating to eyes and skin. Inhalation may cause drying of mucous membranes of the eyes, nose and throat (due to absorption of moisture and oils) which may result in irritation and occasional nosebleeds. Under normal processing conditions, this material will release fume or vapor. Components of these releases may vary with

processing time and temperatures. These process releases may produce eye, skin and/or respiratory tract irritation and, with repeated or prolonged exposures, nausea, drowsiness, headache and weakness.

4 FIRST AID MEASURES

IN CASE OF CONTACT, flush the area with plenty of water. Remove material from clothing. Wash clothing 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. If breathing is difficult, get medical attention.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature	NE		
Flash Point	130-135 C	Flash Point Method	COC
Flammable Limits- Upper	NE		
Lower	NE		

Extinguishing Media

Use water spray, foam or dry chemical.

Fire Fighting Instructions

Do NOT use a solid stream of water. A solid stream of water can cause a dust explosion. 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.

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

Wet down (dampen) the spilled peroxide with water. Sweep or scoop up using non-sparking tools and place into a polyethylene bag for disposal. The 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

7 HANDLING AND STORAGE

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. Wash thoroughly after handling. Avoid creating dust in handling, transfer or clean-up. Avoid breathing dust.

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

Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Respiratory Protection

Avoid breathing dust. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. 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 exposure limit may be significantly exceeded, 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

Exposure Limit		Value
Calcium carbonate		
ACGIH TWA	-	10 mg/m3
Silica gel		
OSHA TWA PEL	-	20 mppcf / 0.8 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	Slightly yellow pellets
pH	NA
Specific Gravity	NA
Vapor Pressure	3 hPa @ 20 C
Vapor Density	NE
Melting Point	NE
Freezing Point	NE
Boiling Point	NE
Solubility In Water	Insoluble
SADT	80 C (BAM Method)

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 = 3.8%

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 and strong 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.

11 TOXICOLOGICAL INFORMATION

alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)
Single exposure (acute) studies indicate that this material is practically non-toxic if swallowed (rat LD50 >23,100 mg/kg), slightly toxic if absorbed through skin (rat LD50 >2,000 mg/kg), no more than moderately toxic if inhaled (rat 4-hr LC50 >0.1 mg/l) and slightly irritating to rabbit eyes and skin.

No skin allergy was observed in guinea pigs following repeated exposure. No genetic changes were observed in tests using bacteria or animal cells.

Limestone
This material is a major component of limestone and is widely used as an over-the-counter antacid. Human workplace experience indicates that exposure to dust does not pose acute or chronic hazards. It is generally considered a nuisance dust. Impure material may contain silica which causes lung fibrosis and increased lung cancer risk. Ingestion of large amounts of antacids results in hypercalcemia or milk alkali disease which is characterized by weakness, nausea, elevated serum calcium levels, alkalosis and, in severe cases, reversible kidney failure. Long-term feeding did not show a promoting or anti-carcinogenic effect in rats. No effects were observed in the offspring of rats following dietary administration during pregnancy; bone effects were observed in the offspring of lamb. No genetic changes were observed in tests using bacteria.

Silica Gel
Laboratory studies in animals exposed by inhalation to this material have reportedly shown reversible lung effects.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

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

alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)
This material is practically non-toxic to guppies (96-hr LC50 750 mg/l).

Limestone
This material is practically non-toxic to Gambusia (LC50 >56,000 mg/l) and mollies (LC50 >100,000 mg/l).

Chemical Fate Information

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

alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)
This material was not biodegradable in a closed bottle test (OECD 301D).

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Incineration is the recommended method for disposal observing all local, state and federal regulations.

14 TRANSPORT INFORMATION

DOT Name	NON-REGULATED
DOT Technical Name	
DOT Hazard Class	
UN Number	
DOT Packing Group	PG
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
Calcium carbonate	NE	
Silica gel	NE	NE
Ethylene-propylene copolymer	NE	
alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)	NE	
Anti-oxidizing agent	NE	NE

Massachusetts Right to Know

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

Calcium carbonate
Silica gel

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.

Silica gel
alpha,alpha-Bis(t-butylperoxy)diisopropylbenzene(s)

Pennsylvania Right to Know

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

Calcium carbonate
Silica gel

16 OTHER INFORMATION

Revision Information

Revision Date	02 JAN 2007	Revision Number 4
Supercedes Revision Dated	19-OCT-2004	

Revision Summary

This material has been transferred to the Functional Additives group.

Key

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

Miscellaneous

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