

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT NAME	NOROX[®] CHM-50	TELEPHONE	870-572-2935
MANUFACTURER	Syrgis Performance Initiators, Inc.	CHEMTREC (24hr) (USA)	800-424-9300
ADDRESS	334 Phillips 311 Rd., Helena, AR 72342	(Maritime/International)	703-527-3887
CHEMICAL NAME	Cumyl Hydroperoxide (CHP)	CAS NO.	See section 2.
CHEMICAL FAMILY	Organic Peroxide	CHEMICAL FORMULA	Mixture.

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	%
Cumyl Hydroperoxide	80-15-9	41 - 43
Phlegmatizer	Proprietary	49 - 51
Cumene	98-82-8	4 - 6
Acetophenone	98-86-2	0 - 3
α,α-Dimethylbenzyl alcohol	617-94-7	0 - 2

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

PHYSICAL HAZARDS	Organic Peroxide. Decomposition.
HEALTH HAZARDS	Irritant.
EXPOSURE LIMITS	TLV is 50 ppm for Cumene, not established for CHM-50.
ROUTES OF EXPOSURE	
Skin Contact	Prolonged exposure may cause irritation and blistering.
Eye Contact	Eye contact may cause damage.
Ingestion	Ingestion may cause severe irritation and burns of the stomach lining.
Inhalation	Prolonged inhalation causes headaches and throat irritation.
EFFECTS OF OVER-EXPOSURE	There are no known medical conditions which are recognized as being aggravated by exposure.

SECTION 4 - FIRST-AID MEASURES

SKIN	Immediately remove any contaminated clothing. Wash contaminated area thoroughly with soap and copious amounts of water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention.
EYES	Remove any contact lenses at once. Flush eyes with water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. If irritation or adverse symptoms develop, seek medical attention.
INGESTION	Do Not induce vomiting. Drink plenty of water. Immediately call a physician. For aid to physician, suggest local Poison Control Center.
INHALATION	Remove to fresh air, if coughing, breathing becomes labored, irritation develops or other symptoms develop, seek medical attention at once, even if symptoms develop several hours after the exposure.

NOTE TO PHYSICIAN: Patient should be examined for burns to the mouth, throat, esophagus and stomach. Large volumes of ingested CHM-50 should be removed by gastric lavage with a large bore tube being careful not to cause aspiration of the compound during the removal.

SECTION 5 - FIRE-FIGHTING MEASURES

FLASH POINT	Not established.
FLAMMABLE LIMITS	Not established.
AUTOIGNITION POINT	Not established.
EXTINGUISHING MEDIA	Water spray, dry chemical, foam, or carbon dioxide.
SPECIAL FIRE FIGHTING PROCEDURES	Fireman should be equipped with protective clothing and SCBA's. In case of fire near storage area, cool the containers with water. Fight fires from a safe distance of from a protected location.
UNUSUAL FIRE AND EXPLOSION HAZARDS	Exposure of containers to fire results in rapid product decomposition, container pressure buildup and failure, followed by vigorous burning with flare effect. Cleanup should not be attempted until all of the product has completely cooled.

NOROX[®] CHM-50

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE	Remove sources of ignition. Do not use vermiculite. <i>Small spills:</i> Absorb in a non-combustible absorbent, such as clean sand, calcium carbonate, or soda ash. Shovel into clean, dry, covered steel drums. Dispose of promptly. <i>Large spills:</i> Dike to contain and pump into clean, dry, covered steel drums for disposal. Dispose of promptly.
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SECTION 7 - HANDLING AND STORAGE

HANDLING	Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. Use PPE as specified in Section 8. Keep containers closed to prevent contamination. Keep away from sources of heat, sparks or flame. Do not add to hot solvents or monomers as a violent decomposition and/or reaction may result. When using spray equipment, never spray raw CHP formulations onto curing or into raw resin or flues. Keep in original container. DO NOT USE NEAR FOOD OR DRINK. Wash thoroughly after handling.
STORAGE	The stability of CHP formulations is directly related to the shipping and storage temperature history. Cool storage at 80°F (27°C) or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 100°F (38°C) and higher will cause product degradation, gassing and potential container rupture which can result in a fire and/or explosion. Store out of direct sunlight in a well ventilated area away from combustible and incompatible materials. DO NOT STORE WITH FOOD OR DRINK. Refer to NFPA 432 Code for the Storage of Organic Peroxide Formulations from the National Fire Protection Association for additional storage information.
OTHER PRECAUTIONS	Unmixed, uncontaminated material, remaining at the end of the day, shall be returned to a proper organic peroxide storage area. Under no circumstances should material be returned to the original container.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

VENTILATION	Mechanical, general.
RESPIRATORY PROTECTION	If airborne concentrations are expected to exceed acceptable levels wear a NIOSH approved air-purifying respirator with an organic vapor cartridge or canister. When using respirators refer to OSHA's 29CFR 1910.134.
EYE PROTECTION	Safety goggles recommended. Permanent eyewash is highly recommended.
HAND PROTECTION	Protective gloves recommended, solvent resistant, such as butyl rubber, nitrile or neoprene.
OTHER	A safety shower and eyewash is recommended when the risk of a significant exposure exists.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:	Colorless to pale yellow liquid with a sharp, aromatic odor.	SPECIFIC GRAVITY:	1.0
BOILING POINT:	N/A - Decomposes.	FLASH POINT:	Not established.
VAPOR PRESSURE:	Not established.	FLAMMABLE LIMITS:	Not established.
VAPOR DENSITY:	Not established.	SADT:	>60°C (140°F)
EVAPORATION RATE:	Not established.	pH:	Not applicable.
% VOLATILE BY VOLUME:	Not established.		
SOLUBILITY IN WATER:	Slightly soluble in water.		

SECTION 10 - STABILITY AND REACTIVITY

STABILITY	Stable at room temperatures. Avoid elevated temperatures, under no circumstances store at or near 60°C (140°F). Avoid contact with the materials listed above. Higher temperatures or contact with the listed materials promote exothermic decomposition.
CONDITIONS TO AVOID	Avoid contamination. Do not store in direct sunlight. Temperatures above SADT.
MATERIALS TO AVOID	Acids and acidic-type materials such as Friedel-Crafts catalysts, oxidizing and reducing agents, oxidation catalysts, polymerizing initiators. Lead, aluminum, copper, copper alloys, and zinc-galvanized materials.

NOROX[®] CHM-50

HAZARDOUS DECOMPOSITION PRODUCTS	Ketones, alcohols, methane, and ethane. Under acidic decomposition conditions, phenols may also be formed. Combustion products include carbon monoxide, carbon dioxide, and generation of smoke.
HAZARDOUS POLYMERIZATION	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION**Cumyl Hydroperoxide****Hazard Data:**

Inhalation: Mouse & Rat--LC₅₀: 200 ppm/4 hr, lung, thorax, respiration, or dyspnea.

Intraperitoneal: Rat--LD₅₀: 95 mg/kg, behavioral, muscle weakness behavioral, ataxia; Mouse--LD₅₀: 270 mg/kg.

Oral: Rat--LD₅₀: 382 mg/kg, kidney, ureter, and bladder, hematuria.

Skin: Rat--LD₅₀: 500 mg/kg.

Subcutaneous: Rat--LD₅₀: 382 mg/kg; Mouse--LD₅₀: 490 mg/kg.

Proprietary Phlegmatizer**Hazard Data:**

Dermal: Rabbit--LD₅₀: >5000 mg/kg.

Eye: Rabbit: Severe irritant.

Oral: Rat--LD₅₀: 3200 mg/kg, Mouse--LD₅₀: 1600 - 3200.

Cumene**Hazard Data:**

Inhalation: Rat--LC_{Lo}: 8000 ppm/4 hr; Mouse--LC₅₀: 10 gm/m³/7 hr, multiple effects kidney, ureter, and bladder, changes in both tubules and glomeruli blood, changes in spleen.

Oral: Rat--LD₅₀: 1400 mg/kg, gastrointestinal, gastritis; Mouse--LD₅₀: 12750 mg/kg.

Skin: Rabbit--LD₅₀: 12300 µL/kg.

Acetophenone**Hazard Data:**

Inhalation: Rat--LC: >210 ppm/8hr; Mammal--LC₅₀: 1200 mg/m³.

Intraperitoneal: Mouse--LD₅₀: 200 mg/kg.

Oral: Rat--LD₅₀: 815 mg/kg; Mouse--LD₅₀: 740 mg/kg; Mammal (unspecified)--LD₅₀: 2700 mg/kg.

Skin: Rabbit--LD₅₀: 15900 µL/kg; Guinea Pig--LD₅₀: > 20 mL/kg.

Subcutaneous: Mouse--LD_{Lo}: 330 mg/kg.

α,α-Dimethylbenzyl alcohol**Hazard Data:**

Oral: Rat--LD₅₀: 1300 mg/kg; Mouse--LD₅₀: 1400 mg/kg.

Skin: Rabbit--LD₅₀: 4300 mg/kg.

SECTION 12 - ECOLOGICAL INFORMATION

No data is available on the preparation itself. The product should be prevented from entering drains, sewers, streams, etc.

Data for Proprietary Phlegmatizer

LC₅₀: 250 mg/l (golden orfe - 48 hours)

EC₅₀: 600 mg/l (daphnia magna - 24 hours)

EC₀: 300 mg/l (daphnia magna- 24 hours)

Biodegradability: 100% degraded in 5 days (Azhn-Wallens test on activated sludge)

SECTION 13 - DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. Dispose of waste material at a RCRA approved hazardous waste management facility in accordance with federal, state and local regulations.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name:	ORGANIC PEROXIDE TYPE F, LIQUID (CUMYL HYDROPEROXIDE, ≤45%)
DOT Hazard Class:	5.2
UN/NA ID No.:	UN3109
DOT Packing Group:	PG II
DOT RQ	RQ (if shipping container is greater than 23.2 lbs)

NOROX[®] CHM-50

Labels: 5.2 (Organic Peroxide)
2004 ERG GUIDE NO.: 145

SECTION 15 - REGULATORY INFORMATION

The following chemicals are 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.

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Percent</u>
Cumyl Hydroperoxide	80-15-9	41 - 43
Cumene	98-82-8	4 - 6
Acetophenone	98-86-2	0 - 3

Reportable Quantity

alpha, alpha-Dimethylbenzylhydroperoxide (CHP): 10 lbs (4.54 kg)

Australian Inventory of Chemical Substances (AICS)

The ingredients in this product are listed in the Australian AICS Inventory.

Canadian Domestic Substances List (DSL)

The ingredients in this product are listed in the Canadian DSL Inventory.

Chinese Inventory of Existing Chemical Substances Manufactured or Imported in China (IECSC)

The ingredients in this product are listed in the Chinese IECSC Inventory.

European Inventory of Existing Commercial Chemical Substances (EINECS)

The ingredients in this product are listed in the European EINECS Inventory.

Japanese Existing and New Chemical Substances (ENCS)

The ingredients in this product are listed in the Japanese ENCS Inventory.

Korean Existing Chemicals List (ECL)

The ingredients in this product are listed in the Korean ECL Inventory.

US Toxic Substances Control Act (TSCA)

The ingredients in this product are listed in the US TSCA Inventory.

Status of Carcinogenicity

Not recognized as a carcinogen by the IARC, NTP or OSHA.

SECTION 16 - OTHER INFORMATION**VOC Information**

Using ASTM Test Method D-2369-87, but at 40°C (since CHP decomposes rapidly above 100°C and is not a VOC), Norox[®] CHM-50 contains 41.2% VOC, by weight, or 438 grams per liter. For more information call Syrgis Performance Initiators, Inc.

NFPA 432 Organic Peroxide Classification

Class III

NFPA 704 Rating

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
3	2	2

HMIS Rating

<u>Health</u>	<u>Flammability</u>	<u>Reactivity</u>
3	2	2

MSDS Reference: CHM-50 MSDS 0709.1

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