

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

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|------------------------|---|---------------------------------|------------------|
| PRODUCT NAME | SUPEROX[®] 46-750 | 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 | Acetyl Acetone Peroxide (AAP) and Cumyl Hydroperoxide (CHP) Mixture | CAS NO. | See section 2. |
| CHEMICAL FAMILY | Organic Peroxide - Ketone Peroxide and Hydroperoxide Mixture | CHEMICAL FORMULA | Mixture of many. |

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

| <u>COMPONENTS</u> | <u>CAS NO.</u> | <u>%</u> |
|-------------------------|----------------|----------|
| Acetyl Acetone Peroxide | 37187-22-7 | 25 - 28 |
| Cumyl Hydroperoxide | 80-15-9 | 16 - 18 |
| Phlegmatizers | Proprietary | 43 - 45 |
| Cumene | 98-82-8 | 1 - 3 |
| Water | 7732-18-5 | 7 - 9 |

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

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|---------------------------------|--|
| PHYSICAL HAZARDS | Organic Peroxide. Decomposition. |
| HEALTH HAZARDS | Severe Irritant. |
| EXPOSURE LIMITS | The TLV/PEL limit is 50 ppm for Cumene. |
| ROUTES OF EXPOSURE | |
| Skin Absorption | Severe skin irritant causes, redness, blistering, and edema. |
| Eye Contact | Eye contact causes severe corrosion and may cause blindness. |
| Ingestion | Human systemic effects by ingestion: changes in structure or function of esophagus, nausea, or vomiting, and other gastrointestinal effects. |
| Inhalation | Inhalation of vapors may result in headache, dizziness, sneezing, loss of coordination, and CNS depression |
| EFFECTS OF OVER-EXPOSURE | High concentrations and prolonged exposure may cause pulmonary edema and emphysema. |

SECTION 4 - FIRST-AID MEASURES

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| 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 | Contact a physician, hospital or Poison Control Center at once. DO NOT INDUCE VOMITING. |
| 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. |

SECTION 5 - FIRE-FIGHTING MEASURES

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| FLASH POINT | >200°F (93°C), C.O.C. |
| FLAMMABLE LIMITS | Not established. |
| AUTOIGNITION POINT | Not established. |
| FIRE EXTINGUISHER MEDIA | Water from a safe distance - preferably with a fog nozzle. In case of very small fires, other means such as carbon dioxide, foam or dry chemical extinguishers may be effective. Dry chemical combined with AAP/CHP may reignite. Light water additives may be particularly effective at extinguishing AAP/CHP fires. |
| SPECIAL FIRE FIGHTING PROCEDURES | Firemen should be equipped with protective clothing and SCBA's. In case of fire near storage area, cool the containers with water spray. If dry chemical is used to extinguish an AAP/CHP fire, the extinguished area must be thoroughly wetted down with water to prevent re-ignition. If material is confined in rigid containers, they may rupture violently. |

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UNUSUAL FIRE AND EXPLOSION HAZARDS The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyze the decomposition.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE Dike to prevent runoff from entering drains, sewers, streams, etc. and transfer into containers. Spilled material should be swept up with an inert, moist diluent such as perlite, vermiculite, or sand and placed in a clean polyethylene lined drum or a polyethylene drum. Add water prior to sealing container.

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 AAP/CHP 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 AAP/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

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.

VENTILATION Mechanical, general.

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

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|------------------------------|---|--------------------------|-----------------------|
| APPEARANCE AND ODOR: | Light yellow liquid with a slight odor. | SPECIFIC GRAVITY: | 1.1 - 1.2 |
| BOILING POINT: | Not established. | FLASH POINT: | >200°F (93°C), C.O.C. |
| VAPOR PRESSURE: | Not established. | FLAMMABLE LIMITS: | Not established. |
| VAPOR DENSITY: | >1 | SADT: | >50°C |
| EVAPORATION RATE: | Not established. | pH: | Not applicable. |
| % VOLATILE BY VOLUME: | Not established. | | |
| SOLUBILITY IN WATER: | Moderately soluble in water. | | |

SECTION 10 - STABILITY AND REACTIVITY

STABILITY Stable when kept in original, closed container, out of direct sunlight at temperatures below 80°F (27°C).

CONDITIONS TO AVOID Contamination. Prolonged storage above 100°F (38°C). Storage above SADT. Storage near flammable or combustible materials.

MATERIALS TO AVOID Metallic contamination, amines, organic metal salts, strong oxidizing and reducing agents, mineral acids, alkalis, promoters and promoted resins or any hot material.

HAZARDOUS DECOMPOSITION PRODUCTS Decomposition products are potentially flammable. Carbon dioxide, carbon monoxide, dense smoke and intense heat.

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HAZARDOUS POLYMERIZATION Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION**Acetyl Acetone Peroxide****Hazard Data:**

No hazard data for this component.

Cumyl Hydroperoxide**Hazard Data:****Inhalation:** Rat--LC₅₀: 220 ppm/4hr.**Intraperitoneal:** Rat--LD₅₀: 95 mg/kg.**Oral:** Rat--LD₅₀: 382 mg/kg, kidney, ureter, and bladder, hematuria.**Skin:** Rabbit--LD₅₀: 500 mg; Rat--LD₅₀: 500 mg/kg.**Subcutaneous:** Rat--LD₅₀: 382 mg/kg.**Phlegmatizers****Hazard Data:****Reproductive Effects****Dermal:** Rabbit--TD_{Lo}: 7500 mg/kg (6-15D preg),**Inhalation:** Rat--LC_{Lo}: 116 ppm/6H (multigenerations).**Oral:** Rat--TD_{Lo}: 9700 mg/kg (6-15D preg).**Toxic Effects****Dermal:** Rabbit--LD₅₀: 8 g/kg.**Inhalation:** Rat--LC_{Lo}: 1g/m³.**Intraperitoneal:** Mouse--LD₅₀: 3050 mg/kg; Rat--LD₅₀: 2472 mg/kg.**Intravenous:** Dog--LD₅₀: 63330 µg/kg; Mouse--LD₅₀: 54500 µg/kg; Rat--LD₅₀: 80500 µg/kg.**Oral:** Mouse--LD₅₀: 5,130 mg/kg, Rat--LD₅₀: 3,200 mg/kg.**Subcutaneous:** Rat--LD_{Lo}: > 2 g/kg.**Tumorigenic Effects****Oral:** Mouse--TD_{Lo}: 784 gmg/kg/7W-C.**Cumene****Hazard Data:****Inhalation:** Rat--LC_{Lo}: 8000 ppm/4hr; Mouse--LC₅₀: 10 gm/m³/7hr, liver, 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.

Severe irritating to the skin may cause including redness, blistering, and edema. May be harmful if absorbed through the skin. Irritating to the eyes may cause severe corrosion and blindness. Harmful if swallowed. May be harmful if inhaled. Prolonged inhalation of vapors may cause mucous membrane irritation and vertigo.

SECTION 12 - ECOLOGICAL INFORMATION

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

SECTION 13 - DISPOSAL CONSIDERATIONS

Prevent material from entering drains, sewers, streams, etc.

Immediately dispose of waste material at a RCRA approved hazardous waste management facility in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

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|---------------------------|--|
| DOT Shipping Name: | ORGANIC PEROXIDE TYPE D, LIQUID (ACETYL ACETONE PEROXIDE, ≤28%, CUMYL HYDROPEROXIDE, ≤18%) |
| DOT Hazard Class: | 5.2 |
| UN/NA ID No.: | UN3105 |
| DOT Packing Group: | PG II |
| DOT RQ | RQ (if shipping container is greater than 55.5 lbs) |
| Labels: | 5.2 (Organic Peroxide) |
| 2004 ERG GUIDE NO: | 145 |

SUPEROX[®] 46-750**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 | 16 - 18 |
| Cumene | 98-82-8 | 1 - 3 |

Reportable Quantity

α-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.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

The ingredients in this product are listed in the Philippines PICCS 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.

California Prop. 65

One of the constituents of the proprietary phlegmatizers is subject to California's Prop. 65 regulations.

SECTION 16 - OTHER INFORMATION**VOC Information**

Using ASTM Test Method D-2369-87, but at 40°C (since AAP and CHP decompose rapidly above 100°C), Superox[®] 46-750 contains 12.5% VOC, by weight, or 144 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> |
|---------------|---------------------|-------------------|
| 2 | 2 | 2 |

HMIS Rating

| <u>Health</u> | <u>Flammability</u> | <u>Reactivity</u> |
|---------------|---------------------|-------------------|
| 2 | 2 | 2 |

MSDS Reference: 46-750 MSDS 0709.1

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