



MATERIAL SAFETY DATA SHEET

SUPEROX[®] 46-757

Syrgis Performance
Initiators, Inc.
Helena, AR

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

PRODUCT NAME	SUPEROX[®] 46-757	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 Cumene 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

COMPONENTS	CAS NO.	%
Acetyl Acetone Peroxide	37187-22-7	17 - 20
Cumyl Hydroperoxide	80-15-9	11 - 12
Aliphatic Glycol Ether	Proprietary	33 - 34
Phlegmatizers	Proprietary	30 - 32
Water	7732-18-5	5 - 6
Cumene	98-82-8	1 - 2

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

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

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

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.

SUPEROX[®] 46-757**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.

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 mixtures 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).

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:**

Clear to slightly yellow liquid with a slight odor.

BOILING POINT:

Not established.

SPECIFIC GRAVITY:

1.1 - 1.2

VAPOR PRESSURE:

Not established.

FLASH POINT:

>200°F (93°C), C.O.C.

VAPOR DENSITY:

>1

FLAMMABLE LIMITS:

Not established.

EVAPORATION RATE:

Not established.

SADT:

60°C (140°F)

% VOLATILE BY VOLUME:

Not established.

pH:

Not applicable

SOLUBILITY IN WATER:

Moderately soluble in water.

SUPEROX[®] 46-757**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. Direct sunlight. Open flame. 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.
HAZARDOUS POLYMERIZATION	Will not occur.

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

No hazard data for this component.

Aliphatic Glycol Ether**Hazard Data:****Oral:** Rat--LD₅₀: 3300 mg/kg**Phlegmatizers****Hazard Data:****Oral:** Rat--LD₅₀: 7 cc/kg.**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

DOT Shipping Name:	ORGANIC PEROXIDE TYPE D LIQUID (ACETYL ACETONE PEROXIDE, ≤20%, CUMYL HYDROPEROXIDE, ≤12%)
DOT Hazard Class:	5.2
UN/NA ID No.:	UN3105
DOT Packing Group:	PG II
DOT RQ	RQ, required if shipping container has greater than 83.3 lbs.
Labels:	5.2 (Organic Peroxide)

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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>
Cumene Hydroperoxide	80-15-9	11 - 12
Cumene	98-82-8	1 - 2

Reportable Quantity

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

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 39°C (since CHP and Acetyl Acetone Peroxide decompose rapidly above 100°C), SUPEROX[®] 46-757 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: 46-757 MSDS 0709.1

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