



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Liqua-Cup® D-16
SYNONYMS: Organic peroxide

SUPPLIER: GEO Specialty Chemicals, Inc.
50 North Market Street
Gibbstown, NJ 08027
1-800-423-7193 [24 hr]

NFPA Rating: NFPA 432 - Organic Peroxide Classification: Class IV
HMIS Classification: Health: 2 Flammability: 2 Reactivity: 2

EMERGENCY TELEPHONE: **CHEMTREC: (800) 424-9300**
Outside USA - 00 1 (703) 527-3887 collect calls accepted

EMERGENCY OVERVIEW:

Pale yellow liquid. Acrid odor. Combustible Liquid. Reactive: Exposure to temperatures above 149° F (65° C) may cause violent decomposition. Exposure to incompatible materials may cause violent decomposition. May cause eye, skin and respiratory tract irritation.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient / CAS No.	Weight %	OSHA - PEL's	ACGIH 2002 - TLV's
tert-Butyl Cumyl Peroxide 3457-61-2	95 - 99	None Established.	None Established.
Acetophenone 98-86-2	0.5 - 1.5	None Established.	= 10 ppm TWA

3. HAZARDS IDENTIFICATION

Hazard Information: WARNING! Combustible Liquid. Organic peroxide.
Eye Contact: May cause moderate eye irritation.
Inhalation: Inhalation of mist or vapor may irritate respiratory tract.
Skin Contact: May cause moderate skin irritation.
Ingestion: Harmful if swallowed.
Aggravated Conditions: Dermatitis. Existing eye, skin and respiratory tract conditions.

MARKETED BY
**HARWICK STANDARD
DISTRIBUTION CORPORATION**
60 S. Seiberling Street • Akron, Ohio 44305

4. FIRST AID MEASURES

Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention.
Skin Contact:	Wash thoroughly with soap and water, remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention if irritation should develop.
Eye Contact:	Remove contact lenses. Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek immediate medical attention.
Ingestion:	Not an ingestion hazard under anticipated conditions of use. For accidental ingestion if conscious, drink one to two glasses of water (8-16 oz.). Do not induce vomiting. If vomiting should occur spontaneously, keep the airway clear. Get medical attention. Never give anything by mouth to an unconscious person.
Notes To Physician:	Large volumes of ingested material should be removed by gastric lavage with a large bore tube, being careful not to cause aspiration of the compound during removal of the tube.

5. FIRE FIGHTING MEASURES

Flash Point (°F/°C)	158° F/ 70° C
Flash Point Method:	Setaflash
Autoignition Temp. (°F):	Not Determined
Flammable Limits in Air - Lower (%):	Not Determined
Flammable Limits in Air - Upper (%):	Not Determined
Extinguishing Media:	Water fog, carbon dioxide, foam, dry chemical.
Fire Fighting Procedures:	Evacuate area and fight fire from a safe distance. Exposure to heat may promote violent decomposition. Cool exposed containers with water spray after extinguishing fire.
Special Exposure Hazards:	Cleanup should not be attempted until all of the product has cooled completely. May produce hazardous fumes or hazardous decomposition products.
Special Protective Equipment:	Fire fighters should wear full protective clothing, including self-contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Procedure for Cleaning/Absorption:	Soak up with absorbent, inert material and place in labeled waste container for disposal. Do NOT mix with vermiculite, Oil-Dri® absorbent, or any other comparable materials that may be acidic. Build dikes as necessary to contain flow of large spills. Wear appropriate personal protective equipment as specified in Section 8. Ventilate area of spill. Do not permit run-off to get into sewers or surface waterways.
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7. HANDLING AND STORAGE

PRECAUTIONARY STATEMENTS:	WARNING! ORGANIC PEROXIDE. COMBUSTIBLE LIQUID May cause mild skin, eye and respiratory tract irritation. Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapors. May be harmful if swallowed or inhaled. Wear chemical splash goggles, gloves, and protective clothing when handling. Use only with adequate ventilation. Use respiratory protection where mists or vapors may be generated. Wash thoroughly after handling. Keep away from food and smoking materials. To avoid contamination, wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
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Handling: FOR INDUSTRIAL USE ONLY.
 Keep container tightly closed when not in use.
Storage: Avoid temperatures above 149° F (65° C) which may cause decomposition and the release of flammable gases.
 Keep away from heat, flame, sparks and other ignition sources.
 Avoid storing product near incompatible materials. See MSDS Section 10.
 Do not store in direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Respiratory Protection: When exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.

Gloves: Appropriate chemical resistant gloves should be worn.

Skin Protection: Normal work coveralls.

Eye Protection: Chemical goggles or a face shield if splashing hazard exists.

Other Personal Protection Data: Eyewash fountains and safety showers must be easily accessible. During repair and maintenance activities, eliminate ignition sources. Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning work. Avoid contamination of food, beverage or smoking materials.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: LIQUID
Color: PALE YELLOW
Odor: ACRID
pH: Not Applicable
Specific Gravity: 0.94
Density @ 20° C: Unknown
Boiling Point (°F/°C): decomposes before boiling
Melting Point Range (°F/°C): Not Applicable
Freezing Point/Range (°F/°C): 59° F/ 15° C
Vapor Pressure: 19.5 mmHg
Vapor Density (Air=1): Not Determined
% Volatile by Volume: 0.58 @ 68° F/20° C
Evaporation Rate (BuAc=1): slower than butyl acetate
Solubility in Water Description: negligible @ 68° F/20° C
VOCs (lbs/gallon): None
Viscosity, Dynamic (Centipoise) @ 20° C: Not Determined
Molecular Weight: Not Applicable

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of handling, use and transportation. Temperatures above 149° F (65° C) may lead to exothermic decomposition.

Conditions to Avoid: Extreme heat. Avoid direct sunlight.

Materials to Avoid: Oxidizing agents. Reducing agents. Acids. Acidic-type materials such as Friedel-Crafts catalysts.

Hazardous Decomposition Products: Alcohols. Ketones. Aliphatic and aromatic hydrocarbons. Decomposition products are flammable. Decomposition products may cause eye, skin or respiratory irritation.

Hazardous Polymerization: Not anticipated under normal or recommended handling and storage conditions.

Additional Guidelines: None.

11. TOXICOLOGICAL INFORMATION

PRINCIPAL ROUTES OF EXPOSURE: Skin, eyes and respiratory tract.
Ingestion: Harmful if swallowed.
Skin Contact: May cause moderate skin irritation.
Inhalation: Inhalation of mist or vapor may irritate respiratory tract.
Eye Contact: May cause moderate eye irritation.

Carcinogenicity Status:

(Chemical Name, Wt. %, CAS No.)

tert-Butyl Cumyl Peroxide 95 - 99 3457-61-2
IARC Group 1, Group 2A or Group 2B Carcinogen: Not Listed
National Toxicology Program Known or Suspect Carcinogen: Not Listed
ACGIH Confirmed or Suspected Carcinogen: Not Listed
OSHA Select or Possible Select Carcinogen: Not Listed

Acetophenone 0.5 - 1.5 98-86-2
IARC Group 1, Group 2A or Group 2B Carcinogen: Not Listed
National Toxicology Program Known or Suspect Carcinogen: Not Listed
ACGIH Confirmed or Suspected Carcinogen: Not Listed
OSHA Select or Possible Select Carcinogen: Not Listed

Acute Oral LD50 (mg/kg): 815 mg/kg (rats) - acetophenone
800 - 3000 mg/kg (rats) - acetophenone, with doses of 400 mg/kg causing narcosis and coma.

Acute Dermal LD50 (mg/kg): 15900 µL/kg (rabbit) - acetophenone
>20,000 mg/kg - acetophenone

Acute Inhalation LC50 (mg/l): LC50 (rats): 150 mg/L (4 hours)

Mutagenicity/Genotoxicity: No mutagenicity or genotoxicity studies have been carried out with this product.

Other Information: REPORTED HUMAN EFFECTS - PRODUCT / SIMILAR PRODUCT: No human toxicity studies have been carried out with this product.

COMPONENT - acetophenone: No sensitization was seen when volunteers were exposed to 2% acetophenone in petrolatum.

REPORTED ANIMAL EFFECTS - PRODUCT / SIMILAR PRODUCT: Not toxic by OSHA/ANSI criteria based on acute peroral testing of this or a similar product (LD50 >500 mg/kg)

Skin irritation (rabbit): severe

Eye irritation (rabbit): not an irritant.

Skin sensitization (guinea pig): not a sensitizer.

COMPONENT: - Acetophenone

Skin irritation (rabbits): primary irritant.

Eye irritation (rabbits): conjunctival irritation and transient corneal damage.

Inhalation (rats): Exposure to a saturated vapor concentration of 600 ppm for 8 hrs produced no deaths.

12. ECOLOGICAL INFORMATION

Mobility:	Not Determined
Persistence:	Not Determined
Bioaccumulative:	Not Determined
Ecotoxicological Information:	
Acute Fish Toxicity:	Not Determined
Acute Crustaceans Toxicity:	Not Determined
Acute Algae Toxicity:	Not Determined
Chemical Fate Information:	Not Determined
Other Information:	No ecological studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Dispose of via incineration (or other approved methods) in accordance with Federal, State and local regulations. Do NOT mix with other chemical wastes. Avoid landfilling liquids. Since the emptied container retains product residue (vapor and liquid), all labeled hazard precautions must be observed.

RCRA

Is the unused product a RCRA hazardous waste if discarded? (Yes/No) Yes
If yes, the EPA Hazardous Waste Code is: D003 (reactivity)

14. TRANSPORTATION INFORMATION

DOT:

DOT Status: REGULATED MATERIAL.
DOT Shipping Name: ORGANIC PEROXIDE, TYPE E, LIQUID (tert-BUTYL CUMYL PEROXIDE, 42-100%)
UN/NA Number: UN3107
Hazard Class: 5.2
DOT Packing Group: II
ERG#: 145
Harmonized Tariff Number: 2909.60.2000

ICAO/IATA:

Status: REGULATED MATERIAL.
Proper Shipping Name: ORGANIC PEROXIDE, TYPE E, LIQUID (tert-BUTYL CUMYL PEROXIDE, 42-100%)
UN/NA Number: UN3107
IATA-DGR Class: 5.2
Packing Group: None
ERG Code: 145

IMDG:

Status: REGULATED MATERIAL.
Proper Shipping Name: ORGANIC PEROXIDE, TYPE E, LIQUID (tert-BUTYL CUMYL PEROXIDE, 42-100%)
UN/NA Number: UN3107
Hazard Class: 5.2
Packing Group: None
EMS No.: F-J, S-R
Flash Point (°F/°C) 158° F/ 70° C

15. REGULATORY INFORMATION

International Inventories:

USA TSCA Inventory Status:	All of the components of this product are listed on the US EPA TSCA Inventory, or exempt from listing.
Canadian DSL:	Some of the components of this product are not listed on the Canadian Domestic Substances List.
Canadian NDSL:	Some of the components of this product are not found on the Canadian Non-Domestic Substances List.
European - EINECS:	All of the components of this product are listed on EINECS, or exempt from notification.
European - ELINCS.	All of the components of this product are not listed on ELINCS.
EU - No-Longer Polymers List:	None of the components of this product are listed on the EUNLP.
Japanese Chemical Inventory:	All of the components of this product are listed on the JPENCS Inventory.
Philippines Chemical Inventory:	All of the components of this product are found on the Philippines Inventory.
Australian Chemical Inventory:	All of the components of this product are not listed on the Australian Chemical Inventory.
Korean Chemical Inventory:	All of the components of this product are found on the Korean Existing Chemical Substances List.

State and Federal Regulations: (Chemical Name, Wt. %, CAS No.)

tert-Butyl Cumyl Peroxide 95 - 99 3457-61-2	
New Jersey Right-to-Know List:	Listed
Acetophenone 0.5 - 1.5 98-86-2	
SARA Section 313 Emissions Reporting:	Listed
CAA - Hazardous Air Pollutants:	Listed
TSCA Section 12(b) Export Notification:	Listed
New Jersey Right-to-Know List:	Listed
Pennsylvania Right to Know List:	Listed
Massachusetts Right to Know Law:	Listed
Minnesota Hazardous Substance List	Listed
Rhode Island Hazardous Substance List	Listed
New Jersey Trade Secret Registry	N/A
Number(s):	
SARA Section 311/ 312 Hazard Class:	This product is classified as a SARA ACUTE HEALTH HAZARD. This product is classified as a SARA FIRE HAZARD. This product is classified as a SARA REACTIVE HAZARD.
Other Information:	None

16. OTHER INFORMATION

Prepared / Edited By:	Peter R. Dluzneski - Manager of Technology
Telephone Number:	(267) 960-7926
Reference Number:	101179 1 PD
Revision Date:	04/29/2005
Additional Information:	None.
Important Note:	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END OF MSDS