



## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Vul-Cup® 40SI  
**SYNONYMS:** a,a'-Bis(t-butylperoxy) Diisopropylbenzene on a carrier of silane modified clay  
**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 V  
**HMIS Classification:** Health: 1 Flammability: 1 Reactivity: 1

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

#### EMERGENCY OVERVIEW:

Off-white powder. Acrid odor. Reactive: Exposure to temperatures above 149° F (65° C) may cause violent decomposition. Exposure to incompatible materials may cause violent decomposition. Static charges generated by emptying packages in or near flammable vapors may cause flash fires. May form flammable dust-air mixtures. May cause transient skin, eye and respiratory irritation.

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient / CAS No.	Weight %	OSHA - PEL's	ACGIH 2002 - TLV's
Silane Modified Clay 66402-68-4	60	None Established.	None Established.
a,a'-Bis(t-Butylperoxy) Diisopropylbenzene 25155-25-3	40	None Established.	None Established.

### 3. HAZARDS IDENTIFICATION

**Hazard Information:** WARNING! Organic peroxide.  
**Eye Contact:** Causes mild eye irritation .  
**Inhalation:** Exposure to dust particles generated from this material may cause irritation of the respiratory tract.  
**Skin Contact:** May cause mild skin irritation.  
**Ingestion:** Harmful if swallowed.  
**Aggravated Conditions:** None known.

### 4. FIRST AID MEASURES

**Inhalation:** If inhaled, remove to fresh air. If not breathing give artificial respiration, preferably

<b>Skin Contact:</b>	mouth-to-mouth. If breathing is difficult give oxygen. Get medical attention. Wash thoroughly with soap and water, remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention if irritation should develop.
<b>Eye Contact:</b>	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 medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person. If vomiting should occur spontaneously, keep airway clear.
<b>Notes To Physician:</b>	None

## 5. FIRE FIGHTING MEASURES

<b>Flash Point (°F/°C)</b>	265° F/129° C
<b>Flash Point Method:</b>	Setaflash
<b>Autoignition Temp. (°F):</b>	Not Determined
<b>Flammable Limits in Air - Lower (%):</b>	Not Determined
<b>Flammable Limits in Air - Upper (%):</b>	Not Determined
<b>Extinguishing Media:</b>	Water Spray, Carbon Dioxide, Foam, Dry Chemical.
<b>Fire Fighting Procedures:</b>	Evacuate area and fight fire from a safe distance. Wear self-contained breathing apparatus pressure demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product. Cool containers to prevent rupture. Cleanup should not be attempted until all of this product has cooled completely.
<b>Special Exposure Hazards:</b>	Fight fire from a safe distance and from a protected location. May deflagrate or explode in a fire due to heat and/or confinement. Evacuate area. Use water spray to cool fire exposed surfaces.
<b>Special Protective Equipment:</b>	Fire fighters should wear full protective clothing, including self-contained breathing equipment.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Procedure for Cleaning/Absorption:</b>	Clean up immediately by sweeping or shoveling material into a properly labeled container for disposal. Wear adequate personal protective clothing and equipment. Do NOT mix with vermiculite, Oil-Dri® absorbent, or any other comparable materials that may be acidic. Recommended absorbents include soda ash, calcium carbonate, clean sand, and clay if known to be inert and non-acidic. Do not mix with other products or wastes. Do not flush to sewer or surface waters!
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## 7. HANDLING AND STORAGE

<b>PRECAUTIONARY STATEMENTS:</b>	<b>WARNING!</b> ORGANIC PEROXIDE.
<b>Handling:</b>	Store in well ventilated area. Keep container closed when not in use. Keep away from heat and open flame.

Avoid contact with eyes, skin, and clothing.  
 Avoid breathing dust; if exposed to high dust concentration, leave area immediately.  
 Wear chemical splash goggles, gloves and protective clothing when handling.  
 Use only with adequate ventilation.  
 Use respiratory protection where dust may be generated.  
 To avoid contamination, wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.  
 Do not take internally.  
 For industrial use only.  
 Ground all equipment.  
 Blanket vessel with inert gas when emptying bags where flammable vapors may be present.  
 Ground operator and pour material slowly into conductive, grounded chute.  
 For large bags (1000 lbs or greater) a ground cable MUST be attached to the bag ground connection.  
 Avoid temperatures above 149° F (65° C) which may cause decomposition and the release of flammable gases.  
 Avoid conditions that generate dust; product may form flammable dust-air mixtures.  
 Avoid emptying package in or near flammable vapors; static charges may cause flash fire.  
 Keep away from heat, flame, sparks and other ignition sources.  
 Do not store in direct sunlight.  
 Store away from easily combustible materials, such as paper and flammable solvents.  
 Avoid storing product near incompatible materials. See MSDS Section 10.  
 Store below 95° F (35° C) to avoid lumping.

**Storage:**

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Engineering Controls:</b>	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.
<b>Respiratory Protection:</b>	When exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.
<b>Gloves:</b>	Appropriate chemical resistant gloves should be worn.
<b>Skin Protection:</b>	Wear chemically protected gloves (neoprene or rubber), boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.
<b>Eye Protection:</b>	Wear chemical goggles if a dust atmosphere exists.
<b>Other Personal Protection Data:</b>	Eyewash fountains and safety showers must be easily accessible. Avoid contamination of food, beverage or smoking materials.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Powder
<b>Color:</b>	OFF-WHITE
<b>Odor:</b>	ACRID
<b>pH:</b>	Not Applicable
<b>Specific Gravity (Water=1):</b>	1.5
<b>Density @ 20° C:</b>	26 lbs/cu ft
<b>Boiling Point (°F/°C):</b>	Not Applicable

<b>Melting Point Range (°F/°C):</b>	Not Applicable
<b>Freezing Point/Range (°F/°C):</b>	Not Applicable
<b>Vapor Pressure:</b>	Not Applicable
<b>Vapor Density (Air=1):</b>	Not Determined
<b>% Volatile by Volume:</b>	Negligible at 68° F/ 20° C
<b>Evaporation Rate (BuAc=1):</b>	Negligible at 68° F/ 20° C
<b>Solubility in Water Description:</b>	Negligible at 68° F/ 20° C
<b>VOCs (lbs/gallon):</b>	Not Determined
<b>Viscosity, Dynamic (Centipoise) @ 20° C:</b>	Not Determined
<b>Molecular Weight:</b>	Not Applicable

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under normal conditions of handling, use and transportation. Temperatures above 149° F (65° C) may lead to exothermic decomposition.
<b>Conditions to Avoid:</b>	Extreme heat. Avoid direct sunlight.
<b>Materials to Avoid:</b>	Acids. Acidic-type materials such as Friedel-Crafts catalysts. Oxidizing agents. Reducing agents.
<b>Hazardous Decomposition Products:</b>	Ketones. Alcohols. Methane. Ethane. Flammable vapors. Decomposition products may cause eye, skin or respiratory irritation.
<b>Hazardous Polymerization:</b>	Not anticipated under normal or recommended handling and storage conditions.
<b>Additional Guidelines:</b>	None.

## 11. TOXICOLOGICAL INFORMATION

<b>PRINCIPAL ROUTES OF EXPOSURE:</b>	Skin, eyes and respiratory tract.
<b>Ingestion:</b>	Harmful if swallowed.
<b>Skin Contact:</b>	May cause mild skin irritation.
<b>Inhalation:</b>	Exposure to dust particles generated from this material may cause irritation of the respiratory tract.
<b>Eye Contact:</b>	Causes mild eye irritation .

### Carcinogenicity Status

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

<b>Silane Modified Clay 60 66402-68-4</b>	
<b>IARC Group 1, Group 2A or Group 2B Carcinogen:</b>	Listed
<b>National Toxicology Program Known or Suspect Carcinogen:</b>	Not Listed
<b>ACGIH Confirmed or Suspected Carcinogen:</b>	Not Listed
<b>OSHA Select or Possible Select Carcinogen:</b>	Not Listed
<b>a,a'-Bis(t-Butylperoxy) Diisopropylbenzene 40 25155-25-3</b>	
<b>IARC Group 1, Group 2A or Group 2B Carcinogen:</b>	Not Listed
<b>National Toxicology Program Known or Suspect Carcinogen:</b>	Not Listed
<b>ACGIH Confirmed or Suspected Carcinogen:</b>	Not Listed
<b>OSHA Select or Possible Select Carcinogen:</b>	Not Listed

<b>Acute Oral LD50 (mg/kg):</b>	> 2000 (rats) - VUL-CUP® R PEROXIDE
<b>Acute Dermal LD50 (mg/kg):</b>	Not Determined
<b>Acute Inhalation LC50 (mg/l):</b>	> 20 (rats) - VUL-CUP® R PEROXIDE

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

**Other Information:** CARCINOGENICITY INFORMATION  
PRODUCT/SIMILAR PRODUCT - Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

REPORTED HUMAN EFFECTS

PRODUCT/SIMILAR PRODUCT - Reports have been received of respiratory and eye irritation from heated vapor or dust when proper industrial hygiene was not used. No published reports of human effects have been found. Due to the physical nature of this material, it may cause eye, skin, and respiratory irritation.

**REPORTED ANIMAL EFFECTS**

PRODUCT/SIMILAR PRODUCT - Not toxic by OSHA/ANSI criteria based on acute animal peroral testing of this or a similar product (LD50 >500 mg/kg). Eye irritation (rabbit): minimal irritation; skin irritation (rabbit): mild irritant; skin (guinea pig): no skin irritation; not a skin sensitizer. Acute vapor inhalation studies (vapors generated by heating peroxide to 125°F) showed no adverse effects in mice, rats, or guinea pigs at 100 mg/m3.

**MUTAGENICITY/GENOTOXICITY INFORMATION**

PRODUCT/SIMILAR PRODUCT - No mutagenicity studies have been carried out with this product.

COMPONENT - alpha, alpha'-Bis(t-Butylperoxy)Diisopropylbenzene: Negative in Ames assay.

**12. ECOLOGICAL INFORMATION**

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

**13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:**

Dispose of product in an approved industrial waste landfill or incinerate in accordance with applicable Federal, state and local regulations. Do NOT mix with other chemical wastes. Do not put solutions containing this product into sewer systems.

**RCRA**

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

**14. TRANSPORTATION INFORMATION**

<b>DOT:</b>	
<b>DOT Status:</b>	NOT HAZARDOUS. NOT REGULATED.
<b>Harmonized Tariff Number:</b>	3815.19.0000
<b>ICAO/IATA:</b>	
<b>Status:</b>	NOT HAZARDOUS. NOT REGULATED.
<b>IMDG:</b>	
<b>Status:</b>	NOT HAZARDOUS. NOT REGULATED.
<b>Flash Point (°F/°C)</b>	265° F/129° C

## 15. REGULATORY INFORMATION

### International Inventories:

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

Silane Modified Clay 60 66402-68-4

<b>SARA Section 313 Emissions Reporting:</b>	Listed
<b>Clean Water Act - Priority Pollutants:</b>	Listed
<b>TSCA Section 12(b) Export Notification:</b>	Listed
<b>New Jersey Right-to-Know List:</b>	Listed
<b>Pennsylvania Right to Know List:</b>	Listed
<b>Massachusetts Right to Know Law:</b>	Listed
<b>Michigan Critical Materials List</b>	Listed
<b>Rhode Island Hazardous Substance List</b>	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

<b>Prepared / Edited By:</b>	Peter R. Dluzneski - Manager of Technology
<b>Telephone Number:</b>	(267) 960-7926
<b>Reference Number:</b>	117706 PD
<b>Revision Date:</b>	05/07/2004
<b>Additional Information:</b>	None.
<b>Important Note:</b>	The information herein is given in good faith but no warranty, expressed or implied, is made.

\*\*\*END OF MSDS\*\*\*