

Material Safety Data Sheet
Cyclo-2245 D5 Cyclomethicone



Data Prepared: October 15th, 2014

SECTION I: IDENTIFICATION OF THE SUBSTANCE & THE COMPANY

Product Name: **Cyclo-2245 D5 Cyclomethicone**

Provided by: **CLEARCO PRODUCTS CO. INC.,**
3430 G. Progress Drive
Bensalem, PA 19020 U.S.A.

Telephone No: 001 215 639-2640
Fax No: 001 215 639-2919
E-mail: info@clearcoproducts.com
Website: www.clearcoproducts.com

Emergency Telephone: CHEM TEL: 1-800-255-3924 (DOMESTIC)
+01-813-248-0585 (INTERNATIONAL)

General Description: Silicone Fluid, cyclic-siloxane
Physical Form: Liquid
Color: Colorless
Odor: Characteristic Odor

NFPA Profile:	Health: 1	Flammability: 2	Instability/Reactivity: 0
HMIS Profile:	Health: 1	Flammability: 2	Instability/Reactivity: 0

SECTION II: HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Acute Effects

Eye: Direct contact may cause temporary redness and discomfort.
Skin: No significant irritation expected from a single short-term exposure.
Inhalation: No significant effects expected from a single short-term exposure.
Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: No known applicable information.
Inhalation: No known applicable information.
Oral: No known applicable information.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS Number</u>	<u>Wt%</u>	<u>Component Name</u>
541-02-6	>60.0	Decamethylcyclopentasiloxane

The above components are hazardous as defined in 29 CFR 1910.1200.

SECTION IV: FIRST AID MEASURES

Eye Contact: Immediately flush with water.
Skin Contact: No first aid should be needed.
Inhalation: No first aid should be needed.

Oral: No first aid should be needed.

Notes to Physician: Treat symptomatically.

SECTION V: FIRE FIGHTING MEASURES

Flash Point: 170.6°F/77 °C (Tag Closed Cup)
171°F/77.2 °C (Cleveland Open Cup)

Autoignition Temperature: 737.6°F/392 °C

Flammability Limits in Air: Lower Limit: 0.70%

Extinguishing Media: On large fires use dry chemical, foam or water spray. On Small fires use carbon dioxide (CO₂), dry chemical or water spray. Water can be used to cool fire exposed containers.

Fire Fighting Measures: Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

Unusual Fire Hazards:None

SECTION VI: ACCIDENTAL RELEASE MEASURES

Containment/Clean up: Determine whether to evacuate or isolate the area according the your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Clear area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Local, state and federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which federal, state and local laws and regulations are applicable. Sections 13 and 15 of this MSDS provide information regarding certain federal and state requirements.

Note: See section 8 for Personal Protective Equipment for Spills. Call (1-800-255-3924), if additional information is required.

SECTION VII: HANDLING AND STORAGE

Use with adequate ventilation. Avoid eye contact.

Static electricity will accumulate and may ignite vapors. Prevent a possible fire hazard by bonding and grounding or inert gas purge. Keep container closed and away from heat, sparks, and flame.

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

Component Exposure Limits

<u>CAS Number</u>	<u>Wt%</u>	<u>Component Name</u>
541-02-6	>60.0	Decamethylcyclopentasiloxane

Engineering Controls

Local Ventilation: Recommended
General Ventilation: Recommended

Personal Protective Equipment for Routine Handling

Eyes: Use proper protection- safety glasses as a minimum
Skin: Washing at mealtime and end of shift is adequate
Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.
Inhalation: No respiratory protection should be needed.
Suitable Respirator: None should be needed

Personal Protective Equipment for Spills

Eyes: Use proper protection-safety glasses as a minimum

Skin: Washing at mealtime and end of shift is adequate
Inhalation/Suitable Respirator: No respiratory protection should be needed
Precautionary Measures: Avoid eye contact. Use reasonable care

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions. For further information regarding aerosol inhalation toxicity, please refer to the guidance document regarding the use of silicone-based materials in aerosol applications that has been developed by the silicone industry (www.SEHSC.com) or contact Clearco Products customer service.

SECTION IX: PHYSICAL & CHEMICAL PROPERTIES

Physical Form	Liquid
Color	Colorless
Odor	Odorless
Specific Gravity @ 25 deg C	0.95
Viscosity	3.8 mm2/s
Freezing/Melting Point	- 44° C
Boiling Point	211°C
Vapor Pressure @ 25C	0.015kPa
Vapor Density	Not determined
Solubility in Water	<0.05 mg/L
pH	Not determined
Volatile Content	Not determined
Flash Point	170°F/77°C (Tag Closed Cup) 171°F/77.2°C (Cleveland Open Cup)
Auto ignition Temperature	737.6°F/392°C
Flammability Limits in Air:	Lower Limit 0.70%

Note: The above information is not intended for use in preparing product specifications.

SECTION X: STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization:	Hazardous polymerization will not occur.
Conditions to Avoid:	None
Material to Avoid:	Oxidizing material can cause a reaction.
Hazardous Decomposition Products	

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon Dioxide. Formaldehyde.

SECTION XI: TOXICOLOGICAL INFORMATION

Acute Toxicology Data for Product

	<u>Species</u>	<u>Test Results</u>	<u>Type of Test</u>
Inhalation LC50:	Rat	8.67 mg/L	4hr dust/mist

Component Toxicology Information

Recent results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. These effects, which have been shown to be rat-specific, occur at highest exposure dose (160 ppm) only, a level that greatly exceeds typical workplace or consumer exposures. Industrial, commercial, or consumer uses of products containing D5 do not represent a risk to humans.

Special Hazard Information on Components

No known applicable information.

SECTION XII: ECOLOGICAL INFORMATION

Environmental Fate and Distribution

Air: Low molecular weight volatile siloxanes in air are degraded by reaction with hydroxyl radicals, which is the dominant degradation process for most chemicals in the atmosphere.

Water: Low molecular weight volatile siloxanes have very low water solubility and evaporate to air.

Soil: Low molecular weight volatile siloxanes in soil are removed by several simultaneously occurring processes including volatilization, hydrolysis, and clat-catalyzed degradation.

Environmental Effects

Toxicity to Water Organisms: This product is volatile and has a very short half life in the aquatic environment and therefore does not present a risk to aquatic organisms.

Toxicity to Soil Organisms: Due to its volatility, this product is unlikely to be found in the terrestrial compartment.

Bioaccumulation: Low molecular weight volatile siloxanes bioconcentrate in fish exposed under controlled laboratory conditions that are not representative of conditions found in the environment.

Fate and Effects in Waste Water Treatment Plants

Low molecular weight volatile siloxanes are efficiently removed (>90%) during wastewater treatment with approximately equal amounts going to the atmosphere and the sludge. Low molecular weight volatile siloxanes in treated wastewater effluent will be bound to particulate matter because of very low water solubility.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC 50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <=2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

SECTION XIII: DISPOSAL CONSIDERATIONS

RCRA Hazard Class (40 CFR 261)

When a decision is made to discard this material, as received, is it classified as a hazardous waste? No

State or local laws may impose additional regulatory requirements regarding disposal. Call (215) 639-2640, if additional information is required.

SECTION XIV: TRANSPORT INFORMATION

DOT Road Shipment Information (49 CFR 172.101)

Proper Shipping Name: Combustible liquid, n.o.s.
Hazard Technical Name: Cyclosiloxane
Hazard Class: C
UN/NA Number: NA 1993
Packing Group: III
Hazard Label(s): None
Remarks: Above applies only to containers over 119 gallons or 450 liters

Ocean Shipment (IMDG)

Not subject to IMDG code.

Air Shipment (IATA)

Not subject to IATA regulations

Call Clearco Products Co Inc, (215) 639-2640, if additional is required.

SECTION XV: REGULATORY INFORMATION

Contents of this MSDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA Status: All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

EPA SARA Title III Chemical Listings

Section 302 Extremely Hazardous Substances (40 CFR 355):

None

Section 304 CERCLA Hazardous Substances (40 CFR 302):

None

Section 311/312 Hazard Class (40 CFR 370):

Acute: No
Chronic: No
Fire: Yes
Pressure: No

Reactive: No

Section 313 Toxic Chemicals (40 CFR 372):

None present or none present in regulated quantities

Note: Chemicals are listed under the 313 Toxic Chemicals section only if they meet or exceed a reporting threshold.

Supplemental State Compliance Information

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm.

None known.

Massachusetts

No ingredient regulated by MA Right-to-Know Law present.

New Jersey

CAS Number

541-02-6

None

Wt%

>60.0

<=4.0

Component Name

Decamethylcyclopentasiloxane

Dimethylcyclosiloxanes

Pennsylvania

CAS Number

541-02-6

None

Wt%

>60.0

<=4.0

Component Name

Decamethylcyclopentasiloxane

Dimethylcyclosiloxanes

SECTION XVI:

OTHER INFORMATION

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.