



# Cyclo-2245 (D5) Cyclomethicone Fluid

**Decamethylcyclopentasiloxane D5 Silicone INCI Name: Cyclopentasiloxane > 99%**



*Cyclo-2245 (d5) Cyclomethicone is widely used a base fluid in body sprays and room sprays.*

Cyclo-2245 (D5) Cyclomethicone is a polydimethylcyclosiloxane that is composed of Decamethylcyclopentasiloxane (CAS# 541-02-6). The product is clear, tasteless, essentially odorless, non-greasy and non-stinging.

Due to their varying rates of evaporation, low surface tensions (high spreadability), and non-greasy feel, Cyclomethicones are used as base fluids, carrying agents and wetting agents in a wide range of personal care products. Cosmetic applications include: room sprays, body sprays, antiperspirants, skin creams, skin lotions, suntan lotions, bath oils, hair care products etc.

Cyclomethicone Fluids are California VOC Exempt and will not contribute to ozone-depletion and global warming. They are being uses as replacements for Non-VOC compliant petroleum-bases solvents as both carrying agents as well as for cleaning solvents where low to medium solvency power is desirable. Both Cyclo-244 and Cyclo-245 have comparable evaporation rates to naphtha solvents, odorless mineral spirits (OMS) as well as some of the isoparaffinic solvents. They are compatible with most substates, including metals and plastics.

In addition, D5 Cyclomethicone is being used as a VOC Exempt cleaning agent in dry cleaning applications. It acts as a carrying agent for the detergent. Unlike more aggressive solvents, it will not degrade the fabrics or make colors run.

Unlike D4 Cyclomethicone (Cyclo-2244), Cyclo-2245 (D5) has a much higher pour point and does not present the freezing concerns that D4 presents.

## Properties

- Clear, colorless, odorless fluid
- Volatile carrier (100% evaporation at room temperature)...leaves no residue or buildup.
- Cosmetic grade...excellent for bases fluids in cosmetic formulations such as body sprays and room sprays
- Compatible with a wide range of Cosmetic ingredients...takes greasiness out of cosmetic oils.
- Low surface tension (high spreadability)
- Low heat of vaporization...non-stinging fluid.
- Excellent lubricity before evaporation.
- Can vary rate of evaporation to adjust residence time on the skin.
- Imparts a soft-silky feel to the skin
- Miscible with virtually all polydimethylsiloxane fluids and most petroleum based fluids
- Soluble in most anhydrous alcohols, waxes, oils (except castor), hydrocarbon oils, esters and silicone fluid.
- Insoluble in water

## VOC Status (CARB VOC) Status

*Cyclo-2245 (d5) Cyclomethicone California (CARB) VOC Exemp. It is finding wide use as a replacement for petroleum based solvents that do not meet VOC compliancy.*

- VOC Exempt Solvent for low solvency applications
- VOC Exempt Dry Cleaning Solvent
- Additive to bring non-VOC formulations into compliancy.

## Caution

Cyclo-2245 Cyclomethicone has a low flash point and appreciable vapor pressure at ambient temperature. Do not expose to heated surfaces or ignition sources.

## Product Data

|                                   |                              |
|-----------------------------------|------------------------------|
| Chemical Name                     | Decamethylcyclopentasiloxane |
| CAS No.                           | 541-02-6                     |
| Appearance                        | Colorless liquid             |
| Specific gravity @25°C            | 0.95                         |
| Viscosity at 25°C                 | 4.0                          |
| Surface tension                   | 18.0                         |
| Flash point-closed cup            | 77°C / 170.6°F               |
| Freeze point                      | -40°C                        |
| Boiling point @ 760mmHg           | 210°C                        |
| Vapor pressure                    | 1.0mmHg (20°C)               |
| Evaporation rate (buty acetate=1) | <1                           |
| Heat of vaporization @25°C        | 157                          |
| (D4) content                      | <1.0%                        |

## CAS Information

|   |
|---|
| Decamethylcyclopentasiloxane CAS# 541-02-6..... > 99% |
| Octamethylcyclotetrasiloxane CAS# 556-67-2.....<1%    |

## Packaging

|                            |        |
|----------------------------|--------|
| 1-gallon pail .....        | 3.6kg  |
| 5-gallon pail.....         | 18kg   |
| 55-gallon drum.....        | 190 kg |
| FOB Phila, PA 19135 U.S.A. |        |

**For More Information, Contact:**

**Clearco Products Co., Inc.**  
3430 G. Progress Drive  
Bensalem, PA 19020  
U.S.A.

Tel: 215 639-2640  
Fax: 215 639-2919  
Email: [info@clearcoproducts.com](mailto:info@clearcoproducts.com)  
Web: [www.clearcoproducts.com](http://www.clearcoproducts.com)