

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 polydimethylcyclsiloxane 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 used as replacements for Non-VOC compliant petroleum-based solvents as both carrying agents as well as for cleaning solvents where low to medium solvency power is desirable. Both Cyclo-2244 and Cyclo-2245 have comparable evaporation rates to naphtha solvents, odorless mineral spirits (OMS) as well as some of the isoparaffinic solvents. They are compatible with most substrates, including metals and plastics.

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 exempt from federal VOC regulations including California (CARB) & South Coast Air Quality. It is finding wide use as a replacement for Petroleum-based solvents that do not meet VOC compliance.

CAS Information

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

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 (butyl acetate=1)	<1
Heat of vaporization @25°C	157
(D4) content	<1.0%

Packaging

1-gallon pail3.6kg
 5-gallon pail.....18kg
 55-gallon drum.....190 kg
 FOB Phila, PA 19135 U.S.A.

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