

# 2009 Cosmetic Grade Silicone Fluids Product Catalog

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## Dimethicone Fluids

### Super-Low Viscosity Dimethicone Fluids

*Recommended for extreme low temp damping application:*

**Chemical Name: Low Viscosity Linear Polydimethylsiloxane (PDMS) Fluids**

**Viscosities: PSF-0.65cSt, PSF- 1cSt, PSF- 1.5cSt, PSF- 2cS & PSF- 3cSt.**



**Super Low-Viscosity Dimethicone Fluids** are linear Polydimethylsiloxane fluids that range in viscosities from 0.65cSt (thinner than water) to 3cSt (centistokes). These fluids are clear, colorless and essentially odorless. Super Low Viscosity Dimethicone Fluids are used as base fluids in a wide array of personal care products due to their excellent spreading (low surface tension) and unique volatility characteristics.

PSF-0.65cSt (Hexamethyldisiloxane) is lowest viscosity and the fastest evaporating. PSF-1cSt (Octamethyltrisiloxane) to PSF-3cSt are also 100% volatile fluids that exhibit varying rates of evaporation;

When blended with a dimethicone fluid (silicone), volatile silicones can adjust the residence time of the silicone on the skin. Unlike other volatile fluids, they do not cool the skin as they evaporate.

Applications include: skin cream lotions, bath oils, suntan lotions, nail polishes, antiperspirants, deodorants, hair sprays and other beauty and hair care products.

#### Features:

- Excellent base fluid for cosmetic formulations
- Very low viscosity...close to water
- 100% Volatile...varying rates of evaporation
- Clear, colorless & essentially odorless fluid
- Excellent Lubrication
- Low surface tension...Highest Spreadability
- Low Heat of Vaporization
- Excellent make-up remover
- Hydrophobic – water repellent
- Miscible with a wide range of cosmetic oils
- Exempt from federal VOC regulations including California CARB and South Coast Air Quality

#### Packaging

Viscosity	1-gallon	5-gallon pail	55-gallon drum
0.65cSt	2.5kg	14kg	150kg
1cSt	3.08kg	15.4kg	170kg
1.5cSt	3.2kg	16kg	150kg
2cSt	3.28kg	16.4kg	170kg
3cSt	3.38kg	16.9kg	170kg

Weights of the fluid vary due to different specific gravity per fluid

### Low Viscosity Dimethicone Fluids

**Chemical Name: Low Viscosity Linear Polydimethylsiloxane (PDMS) Fluids**

**Viscosities: PSF-5cSt, PSF-10cSt & PSF-20cSt**



**Low Viscosity Dimethicone Fluids** are linear Polydimethylsiloxanes (CAS# 63148-62-9) that range in viscosity from 5cSt to 20cSt (centistokes). These fluids are clear, colorless and essentially odorless. **Low Viscosity Dimethicone Fluids** are characterized by their low viscosity (close to water), excellent lubricity, soft-emollient feel, low surface tension (high spreadability), and low pour point (-90°C). Unlike viscosities < 3cSt, these fluids will not evaporate at room temperature and offer much higher thermal stability.

**Low Viscosity Dimethicone Fluids** are used in a wide range of personal care products, providing a soft velvety feel when applied to both hair and skin. They provide a hydrophobic, protective, but breathable barrier to the skin (allows skin to perspire). Low Viscosity Dimethicone Fluids provide lubricity without the greasiness of higher viscosities. They are particularly effective when blended with Cyclomethicone fluids.

Applications include: skin cream lotions, bath oils, suntan lotions, nail polishes, antiperspirants, deodorants, hair sprays and other beauty and hair care products.

#### Features:

- Excellent base fluid in cosmetic formulations
- Lowest viscosity that will not evaporate in an open system
- Excellent Lubrication
- Low Pour Points
- Low Surface Tension – High Spreadability
- Low V.T.C (little viscosity change at both high and low temperatures)
- Provides a soft, emollient feel to skin
- Prevents stickiness in skin care products
- Compatible with a wide range of solvents
- Hydrophobic: water repellent
- Inert: improves stability and shelf-life of formulations
- VOC exempt

#### Packaging

Viscosity	1-gallon	5-gallon pail	55-gallon drum
5cSt	3.45kg	17.25kg	190kg
10cSt	3.52kg	17.6kg	180kg
20cSt	3.6kg	18kg	200kg

Weights of the fluid vary due to different specific gravity per fluid

## Medium Viscosity Dimethicone Fluids

**Chemical Name: Low Viscosity Linear Polydimethylsiloxane (PDMS) Fluids**

**Viscosities: PSF- 50cSt, PSF-100cSt, PSF- 200cSt, PSF- 350cSt, PSF- 500cSt & PSF-1,000cSt**

**Medium Viscosity Dimethicone Fluids** are Linear Polydimethylsiloxane (CAS No. 63148-62-9) fluids that range in viscosities from 50cSt, 100cSt, 200cSt, 350cSt (food grade), 500cSt & 1,000cSt. They are used in a variety of personal care products, providing a soft velvety feel when applied to hair and skin.

**Medium Viscosity Dimethicone Fluids** improve the feel of lotion products, and provide a hydrophobic, protective, but breathable barrier to the skin (allows skin to perspire), which imparts softness and emmoliency.

**Medium Viscosity Dimethicone Fluids** provide lubricity without greasiness and prevent stickiness in skin care products. In hair care products, they increase body and shine without buildup and provide better manageability. Dimethicones are compatible with a wide range of cosmetic solvents and are particularly advantageous when blended with Cyclomethicones

### Features:

- Medium Viscosity
- Excellent Lubrication
- Low Surface Tension – High Spreadability
- Provides a soft, emollient feel to skin
- Prevents stickiness in skin care products
- Compatible with a wide range of solvents
- Hydrophobic – water repellent
- Protects skin against transdermal water loss
- Inert- improves stability and shelf-life of formulations
- Increase Body & Shine in Hair Care Products
- Improve Manageability – make hair easier to comb
- Exempt from Federal VOC Regulations

### Packaging

1-gallon pail	5-gallon pail pail	55-gallon drum
3.6kg	18kg	200kg
F.O.B. Phila., PA U.S.A.		

## High Viscosity Dimethicone Fluids

**Chemical Name: Low Viscosity Linear Polydimethylsiloxane (PDMS) Fluids**

**Viscosities: PSF-5,000cSt, PSF-10,000cSt, PSF- 12,500cSt, PSF- 30,000cSt, PSF-60,000cSt & PSF-100,000cst**

**High Viscosity Dimethicone Fluids** are clear, colorless and odorless Linear Polydimethylsiloxane oils (Polydimethylsiloxanes) that range in viscosities from 5,000cSt, 10,000cSt, 12,500cSt, 30,000, 60,000cSt, & 100,000cSt. They are clear, colorless, odorless and inert.

**High Viscosity Dimethicone Fluids** are used in a variety of personal care products, providing a soft velvety feel when applied to hair and skin. High-Viscosity Dimethicones improve the feel of lotion products, and provide a hydrophobic, protective, but breath-able barrier to the skin (allows skin to perspire), which imparts softness and emmoliency. **High Viscosity Dimethicone Fluids** are significantly effective when diluted with a Cyclomethicone.

**High Viscosity Dimethicone Fluids** are better suited to add sheen and manageability to hair care products than lower viscosities. They are among the most commonly used conditioning additives.

### Features

- High Viscosity
- Excellent Lubrication
- Low Surface Tension: High Spreadability
- Provides a soft, emollient feel to skin
- Prevents stickiness in skin care products
- Compatible with a wide range of solvents
- Hydrophobic: water repellent
- Inert- improves stability and shelf-life of formulations
- Increase body & shine in hair care products
- Seal-in moisture: prevent hair damage

### Packaging

1-gallon pail	5-gallon pail pail	55-gallon drum
3.6kg	18kg	200kg
F.O.B. Phila., PA U.S.A.		

## Super High Viscosity Dimethicone Fluids

**Chemical Name:** Polydimethylsiloxane (PDMS) Fluids

**CAS No:** 63148-62-9

**Viscosities:** PSF-300000cSt, PSF-600,000cSt, PSF- 1,000,500cSt, PSF-2,500,000cSt & PSF-20,000,000cSt

**PSF-Super High Viscosity Dimethicone Fluids** are clear, colorless, and odorless high viscosity Polydimethylsiloxane fluids (CAS# 63148-62-9) with INCI Name Dimethicone. They range in viscosity from 300,000cSt to 20 million cSt.

**PSF-High Viscosity Dimethicone Fluids** are used in a variety of personal care products, providing a soft velvety feel when applied to hair and skin. They improve the feel of lotion products, and provide a hydrophobic, protective, but breathable barrier to the skin (allows skin to perspire).

In hair care products, they increase body and shine without buildup and provide better manageability. Higher Viscosity Dimethicones are better suited to add sheen and manageability to hair care products than lower viscosities. They are among the most commonly used conditioning additives. High Viscosity Dimethicones improve both wet and dry compatibility, impart humidity resistance and a soft feel to hair as well as improve shine.

**PSF-High Viscosity Dimethicone Fluids** are extremely viscous fluids. The PSF-2.5 million and 20 million cSt have gum like viscosities. They are miscible with a wide range of cosmetic solvents and are particularly advantageous when blended with Cyclomethicones.

### Features:

- High Viscosity...PSF-2.5 & 20 million are gum-like
- Excellent Lubrication
- Provides a soft, emollient feel to skin
- Prevents stickiness in skin care products
- Compatible with a wide range of solvents
- Best diluted with Cyclomethicone to lower viscosity
- Hydrophobic: water repellent
- Inert- improves stability and shelf-life of formulations
- Increase body & shine in hair care products
- Seal-in moisture: prevent hair damage

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.5kg	17kg	Quote upon request
F.O.B. Phila., PA U.S.A.		

## PEG-12 Dimethicone Fluid

**Chemical Name:** PEG-12 Dimethicone

**CAS No.** 68937-54-2 > 60%

27274-31-3 10 to 30%

25322-68-3 7 to 13%

**PEG-12 Dimethicone Fluid** is a silicone glycol copolymer soluble in water, alcohol, and hydro-alcoholic systems. It acts as a surface tension depressant, wetting agent, emulsifier and foam builder in a wide variety of cosmetic and personal care products, including hair sprays, shampoos, skin care, lotions, perfumes and shaving soaps.

**PEG-12 Dimethicone Fluid** gives a stable foam. In conditioning shampoos, it provides wet and dry combing in addition to imparting a silky, soft feel to the hair without build up even after repeated wash cycles. It provides the properties of conditioning, emolliency and de-tackification in both body and hair shower products.

### Features

- Effective surface tension depressant
- Excellent conditioning
- Imparts a silky soft feel
- Detackifies greasy formulations
- Good foam builder
- Low usage levels required
- Compatible with a wide range of cosmetic ingredients
- Ensures smooth wet shaving foams

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	18kg
F.O.B. Phila., PA U.S.A.		

# Cyclomethicone Fluids

## Cyclo-2244 (d4) Cyclomethicone Fluid

**Chemical Name:** Octamethylcyclotetrasiloxane  
**INCI Name:** Cyclotetrasiloxane  
**CAS No:** 556-67-2



**Cyclo-2244 (D4) Cyclomethicone** is a polydimethylcyclsiloxane that is composed mainly of octamethylcyclotetrasiloxane (CAS# 556-67-2). 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 petroleum-based solvents. 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 substrates, including metals and plastics.

**Note: Cyclo-2244 has a freeze point of 17°C / 62°F. For applications below this temperature, Cyclo-2245 (d5) is recommended due to its significantly lower pour point.**

### Features

- 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 room sprays and body sprays.
- Compatible with a wide range of cosmetic ingredients
- Low heat of vaporization..non-stinging fluid.
- Will not cool skin when it evaporates.
- Excellent lubricity before evaporation
- Low surface tension fluids (high spreadability)
- Easy Rubout
- California (CARB) VOC Exempt...excellent replacement for petroleum based solvents that are not VOC Compliant
- 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

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	190kg
F.O.B. Phila., PA U.S.A.		

## Cyclo-2245 (d5) Cyclomethicone Fluid

**Chemical Name:** Decamethylcyclopentasiloxane  
**INCI Name:** Cyclopentasiloxane  
**CAS No:** 541-02-6



**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-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 substrates, 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.

### Features

- 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.
- Will not cool skin when it evaporates
- 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

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	200kg
F.O.B. Phila., PA U.S.A.		

## Cyclo-2345 (d5/d6) Cyclomethicone Fluid

**Chemical Name:** Cyclopentasiloxane / Dodecamethylcyclohexasiloxane.

**INCI Name:** Cyclomethicone

**CAS #541-02-6 / CAS# 540-97-630**

**Cyclo-2345 (D5/D6)Cyclomethicone** is a polydimethylcyclsiloxane that is composed of approximately 75% Cyclopentasiloxane (CAS #541-02-6) and approximately 25% of Dodecamethylcyclohexasiloxane (CAS# 540-97-630 ). The fluid 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. The Cyclomethicone component (D5) evaporates faster than the Cyclomethicone component (D6). We can adjust the percentage of the components to adjust the evaporation rate and residence time on the skin.

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 petroleum-based solvents.

For stronger solvent alternatives, we offer the Cyclo-244 and Cyclo-245 which have comparable evaporation rates to naphtha solvents, odorless mineral spirits (OMS) as well as some of the isoparaffinic solvents. If a slower evaporation rate is desirable, Cyclo-2345 may be a better selection. All Cyclomethicones are compatible with most substrates, including metals and plastics.

### Features

- 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.
- Will not cool skin when it evaporates
- 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

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	195kg
F.O.B. Phila., PA U.S.A.		

## Cyclo-Dimethiconol blend

### Cyclo-1400 (Cyclo-Dimethiconol blend)

**Chemical Name:** Cyclomethicone/Dimethiconol blend

#### Formulation:

**Decamethylcyclotetrasiloxane (D5) 541-02-6**

**Octamethylcyclotetrasiloxane (D4) 556-67-2**

**Dimethyl siloxane, hydroxy-terminated 70131-67-8**

**Cyclo-1400** is a blend of Cyclomethicone and Dimethiconol. It consists of a 13% solution of an ultra-high viscosity Dimethiconol in a blend of Cyclotetrasiloxane and Cyclopentasiloxane (D4 & D5). The fluid blend provides soft feel, spreadability and substantivity. Cyclomethicone evaporates readily without a residue or cooling sensation.

It can be readily emulsified or combined with volatile silicone, mineral oil and cosmetic esters to provide a delivery vehicle for active ingredients such as sun screens, skin care products, hair conditioners, facial make-up. It is particularly useful as a hair conditioner in preventing split ends.

### Features

- Soft velvet feel
- Excellent film forming
- Long lasting
- Excellent conditioning
- Cyclomethicones evaporate readily without a residue or cooling sensation
- Conditions hair – especially split ends
- High viscosity Dimethiconol
- Detackifies greasy formulations
- Provides water-repellent film in sunscreens, emollients & moisturizers

### Packaging

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	192kg
F.O.B. Phila., PA U.S.A.		

## Cyclo-1400-DM (Cyclo-Dimethicone blend)

**Chemical Name:** Cyclopentasiloxane / Dimethicone.

**INCI Name:** Cyclopentasiloxane / Dimethicone.

**CAS #541-02-6 / CAS# 63148-62-9**

**Cyclo-1400-DM** is a blend of Decamethylcyclopentasiloxane Cyclomethicone (CAS# 541-02-6) and high viscosity Dimethicone Fluid (CAS# 63148-62-9). It consists of approximately 15% active Dimethicone in a blend of Cyclopentasiloxane (D5). The fluid blend provides soft feel, spreadability and substantivity. The Cyclomethicone evaporates readily without a residue or cooling sensation.

It can be readily emulsified or combined with volatile silicone, mineral oil and cosmetic esters to provide a delivery vehicle for active ingredients such as skincare, color cosmetics and hair care formulations.

### Features

- Clear, colorless, odorless fluid
- Approx 15% active high Viscosity Dimethicone
- Cosmetic grade...used in skin care, color cosmetics and hair care formulations
- Excellent lubricity before evaporation.
- Imparts a soft-silky feel to the skin
- Insoluble in water

### Pricing

5-gallon pail	55-gallon drum
18kg	192kg
F.O.B. Phila., PA U.S.A.	

## PT-56 Phenyltrimethicone

**Chemical Name:** Methylphenylpolysiloxane

**INCI Name:** Phenyl-Trimethicone

**CAS #3522230-22-9**

**PT-56 Phenyltrimethicone Silicone Fluid** is a clear, colorless Methylphenylpolysiloxane (Polyphenylmethylsiloxane) fluid that is used in a wide range of cosmetic formulations to improve performance.

**PT-56 Phenyltrimethicone Silicone Fluid** provides excellent organic solubility and compatibility. Being a phenyl-class silicone, it has a high refractive index (RI) and superior temperature stability at extreme cold and hot temperatures. PT-56 Phenyltrimethicone also has a low viscosity (14cSt) which makes it an excellent diluent as well.

Applications include: gloss enhancer for hair care products, diluent in lotions and creams, detackifier in creams and lotions.

### Features

- Enhances performance in cosmetic formulations
- Excellent organic solubility
- Excellent organic compatibility
- Stable at extreme low and high temps
- Low viscosity...excellent diluent
- High spreadability
- Prevents stickiness in skin care products
- Hydrophobic – water repellent
- Inert- improves stability and shelf-life of formulations
- Increase Body & Shine in Hair Care Products
- Improve Manageability – make hair easier to comb

### Pricing

1-gallon pail	5-gallon pail	55-gallon drum
3.6kg	18kg	200kg
F.O.B. Phila., PA U.S.A.		

**For More Information, Contact:**

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