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**LANYA CHEMICAL**

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NANJING LANYA CHEMICAL CO., LTD.

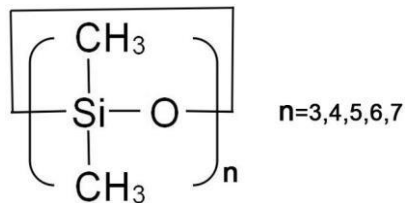
# Products Catalog

## Silicone raw materials

- Dimethylcyclosiloxane (DMC)
- Octamethylcyclotetrasiloxane (D4)
- Decamethylcyclopentasiloxane (D5)
- Polydimethylsiloxane (PDMS)
- Methyl Hydrogen silicone fluid

# Dimethylcyclosiloxane (DMC), CAS 69430-24-6

## Structural Formula



## Details

DMC is the short name of Dimethylcyclosiloxane, it's a mixture of many cyclosiloxanes, including D3, D4, D5, ect...Among them, D4 content is the highest, followed by D5 content, and other cyclosiloxanes have a small proportion.

Our DMC has two grades. Grade I, 83% D4 + 16% D5; Grade II, 93% D4 + 6% D5.

HS Code in China is 3824999999

Package: 190kg/drum, 4 drums/pallet, 80 drums/FCL

950kg/IBC, 18 IBCs/20gp FCL

## Applications

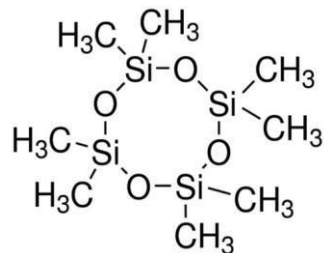
- I. It can be used to synthesize organic silicon polymer by acid or alkali catalysts to manufacture silicone oil, silicone rubber, etc.
- II. And it can also be used as treatment agent for silicone rubber stuffing and the raw material for cosmetic.
- III. The silicone oil, silicone rubber and other polysiloxane products are made from DMC can be further processed into various modified silicone oil and silicone rubber with very good high and low temperature resistance, aging resistance and insulating property.

## Certificate of Analysis

Testing Item	Standard	Result
DMC Content %	≥99.50	99.99
D4 Content %	≥75.0	83.23
D5 %	≤20.0	16.76
D3 %	≤0.5	/
D6 %	≤0.5	/
Viscosity (25°C, mm <sup>2</sup> /s)	≤8	2.54
Liquid Chroma (Hazen No.)	≤10	5

# Octamethylcyclotetrasiloxane (D4), CAS 556-67-2

## Structural Formula



## Details

D4 is the short name of Octamethylcyclotetrasiloxane, it could also be called Cyclotetrasiloxane.

It's a Class III hazardous goods due to low flash point, it's about 51°C (closed cup), so we must pay attention during the transportation.

HS Code in China is 2931900001

Package: 190kg/drum, 4 drums/pallet, 80 drums/FCL  
950kg/IBC, 18 IBCs/20gp FCL

## Applications

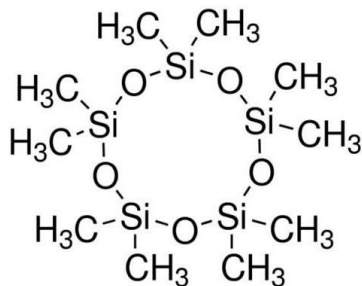
- I. It can be used to synthesize organic silicon polymer by acid or alkali catalysts to manufacture silicone oil, silicone rubber, etc.
- II. And it can also be used directly as treatment agent for silicone rubber stuffing and the raw material for cosmetic.

## Certificate of Analysis

Item	Standard	Result
Content of D4 (%)	≥99.0	99.74
Content of D5 (%)	≤1.0	0.01
Viscosity (25°C, mm <sup>2</sup> /s)	≤8	2.33
Liquid Chroma (Hazen No.)	≤10	5
Appearance	Colorless transparent liquid, and no mechanical impurity	Qualified

# Decamethylcyclopentasiloxane (D5), CAS 541-02-6

## Structural Formula



## Details

Decamethylcyclopentasiloxane, its short name is D5, it could also be called Cyclopentasiloxane, which is safe solvent and widely used in cosmetics and human care products.

HS Code in China is 2931900001

Package: 190kg/drum, 4 drums/pallet, 80 drums/FCL

950kg/IBC, 18 IBCs/20gp FCL

## Applications

I. It can be used in personal care products, including skin cream, cosmetics, shampoo, deodorant and conditioner.

II. It is also used in many applications such as industrial cleaning solution and dry cleaning agent.

III. More green synthetic chemical solvent.

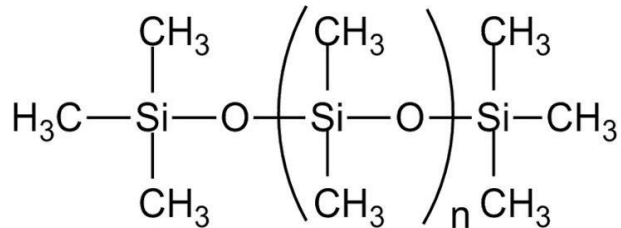
IV. Various monomer units of alkali catalyzed polymerization are used to synthesize polysiloxane polymers.

## Certificate of Analysis

Item	Standard	Result
Content of D5 (%)	≥99.0	99.67
Content of D4 (%)	≤1.0	0.05
Viscosity (25°C, mm <sup>2</sup> /s)	3.5 - 4.5	3.88
Liquid Chroma (Hazen No.)	≤10	5
Appearance	Colorless transparent liquid, and no mechanical impurity	Qualified

# Polydimethylsiloxane (PDMS), CAS 63148-62-9

## Structural Formula



## Details

PDMS is the short name of polydimethylsiloxane, According to the different relative molecular weight, the appearance from colorless transparent volatile liquid to extremely high viscosity liquid or silica gel, odorless, high transparency.

It could also be called 201 Silicone Oil, Dimethicone, Dimethylpolysiloxane.

And we can provide 1cst ~ 300000cst. HS Code in China is 3910000000

Package: 200kg/drum, 4 drums/pallet, 80 drums/FCL  
1000kg/IBC, 18 IBCs/20gp FCL

## Applications

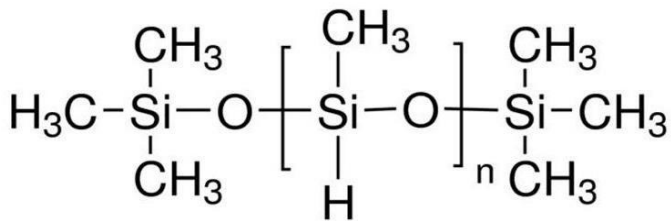
Polydimethylsiloxane is non-toxic and tasteless, has physiological inertia and good chemical stability. Electrical insulation and shock resistance. It has good hydrophobicity and good shear resistance, and can be used for a long time at 50°C ~ 180°C. Widely used as insulation, shockproof, dustproof oil, dielectric fluid and heat carrier, as well as defoaming, release agent, paint and daily chemical additives.

## Main technical Index

Name	Viscosity (25°C mm <sup>2</sup> /s)	FlashPoint (°C)	Volatile Matter 150°C*3h,%
100	90-110	≥290	≤1
350	315-385	≥290	≤1
500	450-550	≥295	≤1
1000	900-1100	≥300	≤1
125000	121000-129000	≥310	≤1
100000	95000-105000	≥310	≤1

# Methyl Hydrogen Silicone Fluid, CAS 63148-57-2

## Structural Formula



## Details

Methyl Hydrogen Silicone Fluid, it could also be called MH Fluid, Polymethylhydrosiloxane (PMHS), it belongs to hydrogen branched silicone and not to hydrogen terminated linear silicone.

Because of the relatively active Si-H-bond in the molecule, it can react with other chemical substances containing double bond and hydroxyl group under the action of catalyst to produce silicone products with various special properties.

HS Code in China is

3910000000 Package: 1000kg/IBC,

18 IBCs/20gp FCL

## Applications

I. It can form a durable waterproof membrane with good hydrophobic and high contact angle, it can be as a waterproof agent for gypsum board, ceramic tile, ect.

II. Addition silicone rubber series products are used as crosslinking agent.

III. Synthetic modified silicone oil is the basic raw material and important intermediate for the synthesis of polyether modified silicone oil and alkyl modified silicone oil.

IV. Make-up oily foundation with hydrophobic agents and lubricants, adhesives and so on.

## Certificate of Analysis

Testing Item	Standard	Result
Appearance	Colorless transparent liquid without visible impurity	Complied
Hydrogen content (%)	1.55-1.65	1.60
Viscosity ( 25°C, mm <sup>2</sup> /s)	15-30	20.81
Volatile matter (150°C/3h, %)	2Max	0.96
Acid Value (HCl, µg/g)	5Max	Complied