

## Cyclomethicone

### Specification Sheet

**Description:** 100% active cyclic silicone polymer blend consisting of siloxane D4 (cyclotetrasiloxane) and siloxane D5 (cyclopentasiloxane). Cyclic silicones are low-molecular weight silicones and are not viscous but very fluid and often used as solvents. Linear silicones (e.g. dimethicone) are large high-molecular polymers that are viscous and more oil-like.

**CAS:** 556-67-2, 293-51-6, 541-02-6

**INCI Name:** Cyclotetrasiloxane, cyclopentasiloxane

**Composition:** Cyclotetrasiloxane, cyclopentasiloxane

**Appearance:** Clear to slightly hazy liquid, odorless.

**Benefits:**

- Rapidly evaporates without cooling the skin. Leaves the skin dry, smooth, and silky.
- Ideal carrier for makeup, other color cosmetic skin creams, deodorants, and stick products without the oily feel.
- Provides excellent stability and aesthetics.

**Use:** Typical use level 1-10% (up to 50% possible), add to oil phase of formulas but do not heat over 50°C (125°F). Can also be mixed into emulsions after the temperature drops to 50°C (125°F). For external use only.

**Applications:** Color cosmetics, creams, deodorants, sticks, hair care products.

**Solubility:** Very low water solubility (20 micrograms/L), soluble in alcohol, mixable in oils

**Preservation:** Preservative-free

**Storage:** Store in a closed container at a dry place at room temperature.

**Country of Origin:** USA

**Raw material source:** Dimethyldichlorosilane and water

**Manufacture:** Cyclomethicone is made from dimethyldichlorosilane which is produced by powdered silicon (silicone dioxide) and methyl chloride. Dimethyldichlorosilane is then hydrolyzed to give a hydrolysate mixture

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of polysiloxanes. In a polymerization reaction with water the polysiloxanes are then polymerized to a cyclic polymer (cyclomethicone) consisting of either 4 siloxane units (cyclotetrasiloxane) or 5 siloxane units (cyclopentasiloxane).

**Animal Testing:** Not animal tested.

**GMO:** GMO-free

**Vegan:** Does not contain animal-derived components.

**HS Code:** 3910.00.0000