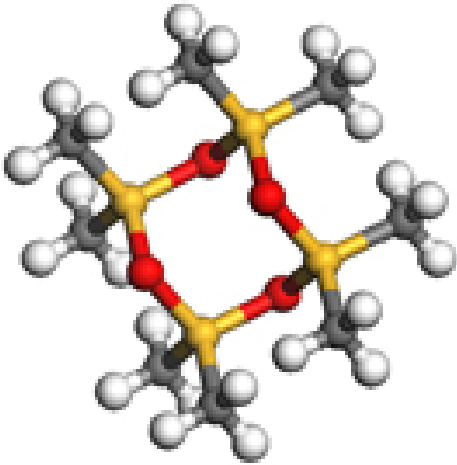


ALOHA™ CVD/ALD Materials



OMCTS

Octamethylcyclotetrasiloxane

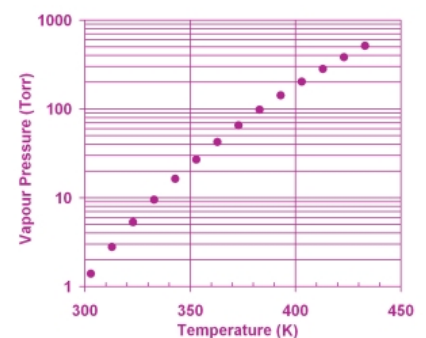
$((\text{CH}_3)_2\text{SiO})_4$

CAS n° 556-67-2

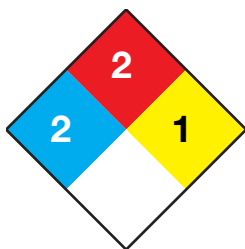
- OMCTS or octamethylcyclotetrasiloxane is used in the semiconductor industry for Plasma Enhanced Chemical Vapor Deposition (PECVD) of SiOC:H , to deposit low k dielectrics in advanced semiconductor devices. It is a colorless volatile liquid in normal conditions. Due to its high melting point, care should be taken to make sure that the product is liquid when connected to the dispense system.
- Semiconductor OMCTS is obtained by ultra-purification of "D4" which is a raw material to manufacture polydimethylsiloxanes. Extensive data and qualifications have shown that OMCTS performance is not affected by freeze-thaw phenomena that may occur during transportation.
- Air Liquide's ultrahigh purity OMCTS is qualified at major volume users.
- Other main usage of "D4" are as intermediate in the silicone industry (sealants, etc.) and in the cosmetic industry.

Physical Chemical Properties

Physical Property	
Molecular Weight	296.61 g.mol ⁻¹
Physical State	Liquid
Melting Point	17-18°C
Boiling Point	175-176°C
Vapor Pressure	100 Torr at 112°C
Gravity	0.96 g.cm ⁻³ @ 25°C
Viscosity	2.5 cSt @ 25°C
Flash point	56°C



Hazard Rating



HMIS

Health: 2
Flammability: 2
Reactivity: 1

Properties and Handling

- OMCTS is intrinsically stable and does not thermally decompose under inert atmosphere. It is not soluble in water but soluble in most organic solvents.
- OMCTS can be distributed in UHP stainless steel distribution systems, such as the Air Liquide CANDI system.
- OMCTS has a high melting point (~17°C) and must be stored in a climate controlled area prior to be connected to the Liquid Dispense System. Freeze/thaw phenomena on OMCTS has been shown to be completely reversible, and is documented by multiple analyses and process qualification. Please contact ALOHA for further information on this product.

Packaging & Dispensing System

- OMCTS is typically delivered using a liquid dispensing system such as **C**ontinuous **A**dvanced Precursor **D**ispenser (CANDI) on most OEM Platform. CANDI has distinctive, patent pending features, such as "last drop usage" function that does not require an internal liquid level sensing mechanism.
- OMCTS is available in SEMI F66-1101 and F 96-0704 compliant canisters of 5 Gallons and 2 Gallons (18.9L and 7.6L) equipped with manually or pneumatically actuated valves. For bulk delivery, 55 Gallons canisters are also available along with Air Liquide's Bulk Refill system.



Transport Information

- Proper shipping name: Octamethylcyclotetrasiloxane, NOS
- CAS n° 556-67-2
- UN Number: 1993
- ADR Class/division: 3
- ADR Package group: III
- Label ADR: Label 3: Flammable liquid

