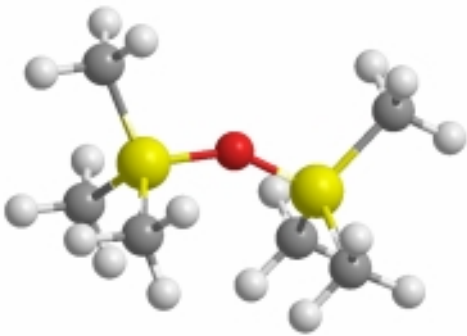


ALOHA™ CVD/ALD Materials



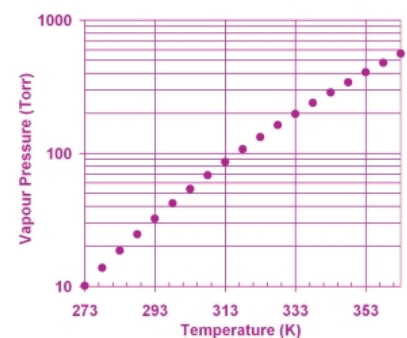
HMDSO

Hexamethyldisiloxane
 $(\text{CH}_3)_3\text{Si-O-Si}(\text{CH}_3)_3$
 CAS n° 107-46-0

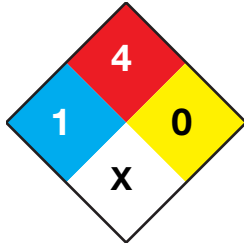
- HMDSO or hexamethyldisiloxane is used in for Plasma Enhanced Chemical Vapor Deposition (PECVD) of a variety of films for numerous applications such as optical anti-reflective coatings, low-k SiOC:H films, or hydrophobic treatments of surfaces. It is a colorless and highly volatile liquid in normal conditions.
- High purity HMDSO is obtained by ultra-purification of industrial grade product, which is obtained by the condensation of trimethylchlorosilane in water.
- Air Liquide's ultrahigh purity HMDSO is produced from controlled source raw material and processed to yield extremely low moisture and particles in order to ensure high performance, repeatable processing.
- The quality of ALOHA's precursors is guaranteed using state of the arts analytical techniques developed by BALAZS™, Air Liquide's analytical service company to the semiconductor industry.

Physical Chemical Properties

Physical Property	
Molecular Weight	162.38 g.mol ⁻¹
Physical State	Liquid
Melting Point	-67°C
Boiling Point	99°C
Vapor Pressure	55 Torr @ 30°C
Density	0.763 g.cm ⁻³ @ 20°C
Viscosity	0.65 cSt @ 25°C
Dielectric constant	2.17
Heat of Vaporization	7.2 kcal.mol ⁻¹
Flash point	-1°C



Hazard Rating



HMIS

Health: 1
Flammability: 4
Reactivity: 0

Properties and Handling

- HMDSO is intrinsically stable and does not thermally decompose under inert atmosphere. It is not soluble in water (930 ppb) but soluble in most organic solvents.
- HMDSO can be distributed in UHP stainless steel distribution systems, such as the Air Liquide CANDI system.

Packaging & Dispensing System

- HMDSO 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.
- HMDSO 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:
ADR : Flammable Liquid, N.O.S. (hexamethyldisiloxane)
- DOT : Flammable Liquid, N.O.S. (hexamethyldisiloxane)
- UN Number: 1993
- EINECS Number : 203-492-7
- ADR Class/division: 3
- DOT Class: 3
- Package group: II (F-Highly Flammable)
- Label ADR/DOT: FLAMMABLE

