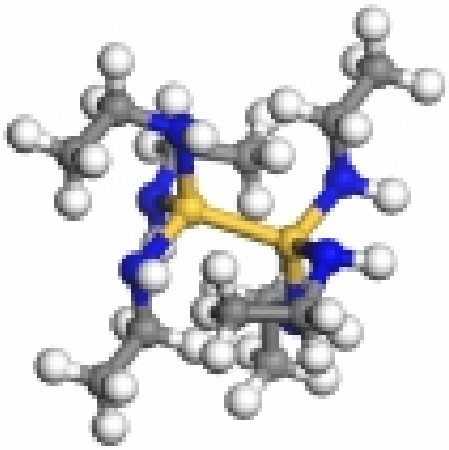
AIR LIQUIDE
ELECTRONICS

ALOHA™ Special Precursors



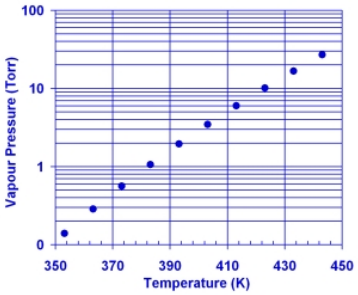
AHEAD

Hexakis(ethylamino)disilane
$Si_2(NHC_2H_5)_6$
CAS n° 532980-53-3
AL Precursors global offer - SiN / SiO_2

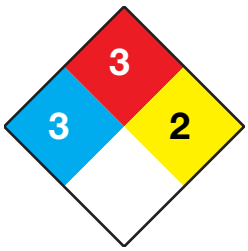
- AHEAD™ is the precursor of choice for the deposition of C-doped Silicon Nitride for spacers and capping layers for the 65 and 45 nm nodes.
- The extremely low thermal budget makes it compatible with NiSi contact layers.
- AHEAD™ exhibits much higher etching selectivity vs. oxide than any other existing solution for XLT deposited films, and impressive step coverage capabilities.
- AHEAD™ also permits low T SiO_2 ALD with 2x grouwth per cycle benefit over commonly proposed solution.
- Like for most of the ALOHA advanced products, each canister of AHEAD is supplied with BALAZS CofA ensuring strict compliance with the specifications. Please consult www.balazs.com for more information.
- Main application : SiN Spacer, SiN Cap, SiO_2 ALD

Physical Chemical Properties

Physical Property	
Molecular Weight	320.6 $g.mol^{-1}$
Physical State	Liquid
Colour	Colourless
Melting Point	-7°C
Boiling Point	257°C (extrapolated)
Vapor Pressure	1 Torr @ 110°C
Density	1 $g.cm^{-3}$



Hazard Rating



HMIS
Health: 3
Flammability: 3
Reactivity: 2

The product should be handled considering that the major by-product in case of air exposure is alkylamine. Please consult AHEAD MSDS for additional information.

All materials in contact with AHEAD should be compatible with amines.

Packaging & Dispensing System

- AHEAD can be packaged in a variety of canisters depending on the application.
- AHEAD is available in SEMI F66-1101 and F96-0704 compliant canisters of both standard 5 and 2 gallons (18,9L and 7,6L) sizes, as well as in smaller custom design canisters.
- To allow the installation on the CANDI Solvent, a special patent pending valve design allows a perfect and complete removal of AHEAD traces prior to disconnection.
- AHEAD is delivered using a liquid dispensing system such as the Air Liquide CANDI Solvent system. The relatively low pressure of this compound at room temperature makes the solvent purge module mandatory to properly clean the connection point of the canister and avoid the reaction of adsorbed traces of the product upon canister exchange.

Transport Information

- Proper shipping name: Flammable liquid, Corrosive
- CAS n° 532980-53-3
- UN Number : UN 2924
- Class/division: 3
- Package group: II
- Label ADR: 3 , 8

For more information please contact: **aloha@airliquide.com** or your local Air Liquide representative.

ALOHA
ELECTRONICS PERFORMANCE MATERIALS