

ELECTRONIC GAS

DISILANE Si₂H₆ MIXTURES

Disilane can be diluted with argon, helium, hydrogen or nitrogen in order to provide concentrations of less than 100%. Using disilane in this form can add an additional degree of control to the process, particularly when relatively small amounts of silicon are to be deposited. Mixtures are analyzed prior to shipment to ensure that the concentration is in the range requested. Disilane mixtures are prepared as ordered. Concentrations other than those listed below are available upon request.

Container Information

CYLINDER CONNECTION: CGA-350

DOPING CONCENTRATIONS can be mixed with VLSI or ULSI grade balance gases

Disilane Concentration	Cylinder Size	Pressure psig	Argon		Helium		Hydrogen		Nitrogen	
			ft ³	m ³	ft ³	m ³	ft ³	m ³	ft ³	m ³
10 ppm - 1%	044	1650	195	5.5	175	5.0	175	5.0	185	5.2
	016	1650	75	2.1	66	1.8	66	1.8	70	2.0
1.1% - 3%	044	900	114	3.2	100	2.8	100	2.8	106	3.0
	016	900	40	1.1	35	1.0	35	1.0	37	1.1
3.1% - 5%	044	500	66	1.9	58	1.6	58	1.6	62	1.8
	016	500	24	0.7	21	0.6	21	0.6	22	0.6
5.1% - 10%	044	250	32	0.9	28	0.8	28	0.8	30	0.8
	016	250	11	0.3	10	0.3	10	0.3	11	0.3

Concentrations (partial pressure) of the main component must be kept below its vapor pressure in order to prevent condensation. Therefore a mixture of changing concentration will result in lower allowable cylinder contents as the concentration increases.

SHELF LIFE: 1 year

DOT Shipping Information

HYDROGEN BALANCE

Conc	Shipping Name	Shipping Papers	Shipping Labels
All	___% Disilane/Hydrogen Mixture	Compressed Gases, flammable, nos (___ppm Disilane/Hydrogen Mixture) 2.1 UN 1954	Flammable Gas

TSCA Warning:

This material is supplied under a "Low Volume Exemption" of the Toxic Substances Control Act. As such, we are restricted to the formation of silicon and silicon compounds.