

# ELECTRONIC GAS

## SILANE SiH<sub>4</sub> MIXTURES

Silane can be diluted with argon, helium, hydrogen or nitrogen in order to provide concentrations of less than 100%. Using Silane in this form can add an additional degree of control to the process, particularly when relatively small amounts of silicon are to be deposited. All mixtures are analyzed prior to shipment to ensure that the concentration is in the range requested.

Silane mixtures are prepared as ordered. Concentrations other than those listed below are available upon request.

### Container Information

CYLINDER CONNECTION: CGA-350 / DISS-632

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

Silane Concentration	Cylinder Size	Pressure psig	Argon		Helium		Hydrogen		Nitrogen	
			ft <sup>3</sup>	m <sup>3</sup>	ft <sup>3</sup>	m <sup>3</sup>	ft <sup>3</sup>	m <sup>3</sup>	ft <sup>3</sup>	m <sup>3</sup>
10 ppm - 15%	044	1800	201	5.7	177	5	177	5	189	5.4
	016	1800	76	2.2	68	1.9	68	1.9	72	2

SHELF LIFE: 2 years

Silane Concentration (by volume)	Cylinder Sizes	
	044	016
	Silane Contents (grams)	
10 - 999 ppm	< 7	< 3
0.1 - 0.5%	< 36	< 13
0.51 - 0.99%	< 69	< 25
1%	69	25
2%	136	50
3%	204	75
4%	272	100
5%	340	125
10%	680	250
15%	1020	375

### DOT Shipping Information

#### HYDROGEN BALANCE

Conc	Shipping Name	Shipping Papers	Shipping Labels
ALL	___% Silane/Hydrogen Mixture	Compressed Gases, flammable, nos (___% Silane/Hydrogen Mixture) 2.1 UN 1954	Flammable Gas
>1%	___% Silane/Nitrogen Mixture	Compressed Gases, flammable, nos (___% Silane/Nitrogen Mixture) 2.1 UN 1954	Flammable Gas
<1%	___% Silane/Nitrogen Mixture	Compressed Gases, nos (___% Silane/Nitrogen Mixture) 2.1 UN 1956	Non-flammable Gas