DIBORANE B_2H_6 MIXTURES

Diborane is a colorless, unstable, highly toxic flammable gas with a sickly-sweet odor. The odor is subjective and therefore not reliable, and should not be used to detect the presence of the gas. Diborane mixture are shipped under high pressure in steel cylinders. Diborane can be diluted with argon, helium, hydrogen or nitrogen in order to provide concentrations less than 100%. Using diborane in this form can add an additional degree of control to the process, particularly when relatively small amounts of boron are to be deposited. Mixtures are analyzed prior to shipment to ensure that the concentration is in the range requested.
Diborane mixtures are prepared as ordered. Concentrations other than those listed below are available upon request.

Container Information

CYLINDER CONNECTION: std: CGA-350 opt: DISS-632
DOPING CONCENTRATIONS can be mixed with UHP or VLSI grade balance gases

Diborane 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
5 ppm - 10%	049	2100	270	7.64	235	6.65	235	6.65	250	7.08
	044	1800	200	5.66	175	4.95	175	4.95	187	5.30
	016	1800	75	2.12	66	1.87	66	2.12	70	1.98
	008	1800	34	0.97	31	0.87	31	0.87	33	0.92

SHELF LIFE: 5 ppm - 1% 1 year
> 1% - 5% 6 months
> 5% 3 months

Borosilicate Glass - Diborane In Silane

Diborane Concentration	Cylinder Size	Pressure psig	Contents ft^3	Contents m^3
1 - 10%	049	875	148	4.19
	044		133	3.771
	016		50	1.42
	008		28	0.79

Specifications (pure Diborane)

COMPONENT DIBORANE	ELECTRONIC 99.95%min
Tetraborane	< 300 ppm
Pentaborane	< 150 ppm
Carbon Dioxide	< 5 ppm
Hydrogen	< 500 ppm
Nitrogen	< 10 ppm
Oxygen	< 1 ppm
THC (as Methane)	< 5 ppm