

ELECTRONIC GASES

ARSINE AsH₃ MIXTURES

Arsine can be diluted with argon, helium, hydrogen or nitrogen in order to provide concentrations of less than 100%. Using arsine in this form can add an additional degree of control to the process, particularly when relatively small amounts of arsenic are to be deposited. Arsine mixtures are prepared as ordered. Concentrations other than those listed below are available upon request.

Description

CYLINDER CONNECTION: std: CGA-350 opt: DISS-632

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

Arsine concentration	Cylinder size	Pressure (psig)	Argon ft ³ m ³	Helium ft ³ m ³	Hydrogen ft ³ m ³	Nitrogen ft ³ m ³
5 ppm - 5%	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 -7500 ppm		6 months				
>7500 ppm		1 year				

Arsine in Hydrogen

Concentration	Cyl Size	Pressure psig	Contents ft ³ m ³
10%	049	1525	170 4.82
	044		148 4.19
	016		50 1.42
	008		28 0.79
15%	049	1010	130 3.68
	044		113 3.20
	016		43 1.22
	008		22 0.62

DOT Shipping Information

HYDROGEN BALANCE

Conc	Shipping Name	Shipping Papers	Shipping Labels
>10%	__% Arsine/Hydrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Hydrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone A	Poison Gas Flammable Gas
10% -2%	__% Arsine/Hydrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Hydrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone B	Poison Gas Flammable Gas
2% - 0.67%	__% Arsine/Hydrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Hydrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone C	Poison Gas Flammable Gas
0.67% - 0.4%	__% Arsine/Hydrogn Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Hydrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone D	Poison Gas Flammable Gas
<4000 ppm	__ppm Arsine/Hydrogen Mixture	Compressed Gases, flammable, nos (__ppm Arsine/Hydrogen Mixture) 2.1 UN 1954	Flammable Gas

NITROGEN BALANCE

Conc	Shipping Name	Shipping Papers	Shipping Labels
>10%	__% Arsine/Nitrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Nitrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone A	Poison Gas Flammable Gas
10% -2%	__% Arsine/Nitrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Nitrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone B	Poison Gas Flammable Gas
2% - 1%	__% Arsine/Nitrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Nitrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone C	Poison Gas Flammable Gas
1% - 0.67%	__% Arsine/Nitrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Nitrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone C	Poison Gas
0.67% - 0.4%	__% Arsine/Nitrogen Mixture Inhalation Hazard	Compressed Gases, toxic, flammable, nos (__% Arsine/Nitrogen Mixture) 2.3 UN 1953 Poison Inhalation Hazard, Hazard Zone D	Poison Gas
<4000 ppm	ppm Arsine/Nitrogen Mixture	Compressed Gases, nos (__ppm Arsine/Nitrogen Mixture) 2.2 UN 1956	Nonflammable Gas