

ELECTRONIC GAS

DISILANE Si₂H₆

Disilane is a non-corrosive, colorless gas which is spontaneously flammable in air. It decomposes slowly at room temperature to form monosilane and hydrogen. It is used for rapid low temperature deposition of epitaxial silicon, amorphous silicon and silicon-based dielectrics. It is compatible with hydrogen, argon, helium, and nitrogen and is often shipped as a mixture with these gases, as well as in pure form.

Container Information			
CYLINDER SIZE	CONTENTS		Pressure @ 21.1°C Valve Outlet
	LB	KG	
044	22	10	33 psig CGA-350 / DISS-632
006	4.4	2	DOT Shipping Description: Compressed gases, flammable N.O.S. (Disilane) 2.1, UN 1954
7X	100g		DOT Shipping Labels Flammable Gas DOT Guide No. 22 CAS Registry No. 1590-87-0

Specifications	
COMPONENT DISILANE	ELECTRONIC 99.999% min (exc. silane & higher silanes)
Carbon Dioxide	< 1 ppm
Chlorosilanes	< 0.2 ppm
Higher Silanes	< 50 ppm
Nitrogen	< 2 ppm
Oxygen	< 1 ppm
Silane	< 1000 ppm
Siloxanes	< 2 ppm
THC (as Methane)	< 1 ppm
Water	< 1 ppm

SHELF LIFE: 2 years

Physical Properties	
Molecular Weight	62.22
Flammability Limits in air	Pyrophoric
Specific Gravity, Gas @ 70°F(21.1°C), 1 atm(Air=1)	2.35
Density, Gas @ 59°F(15°C), 41 atm	0.16lbs/ft ³ (2.58g/l)
Specific Volume, Gas @ 59°F(15°C), 41 atm	6.23ft ³ /lb (0.388l/g)
Liquid Density @ Boiling Point	56.25lb/ft ³ (901g/l)
Boiling Point @ 1 atm	6.3°F (-14.3°C)
Melting Point @ 1 atm	-206.7°F (-132.6°C)
Critical Temperature	303.5°F (150.8°C)
Critical Pressure	746.8 psia (51.5 bar)
Toxicity	
TLV-TWA	None established
recommend using Silane	5 ppm (ACGIH 1991-92)

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.