



# Semiconductor Gases & Properties

TYPE	GAS	SYNONYM	FORMULA	CLASS	VP@20 C	HEAT TRACING	WEIGH SCALES	VENTURI
<b>Silicon Precursor</b>	Dichlorosilane	DCS	SiH <sub>2</sub> Cl <sub>2</sub>	F+, T, C	1.6	R	R	R
	Disilane	Silicon Hexahydride	Si <sub>2</sub> H <sub>6</sub>	F+	2.3	R	R	
	Germane	Germanium Hydride	GeH <sub>4</sub>	F+, T+	n/a			R
	Germanium Tetrafluoride	Tetrafluorogermene	GeF <sub>4</sub>	T, C	4.04		R	R
	Methyl Silane	Monomethylsilane	CH <sub>3</sub> SiH <sub>3</sub>	F+	13		R	
	Silane	Silicon Hydride	SiH <sub>4</sub>	F+, P	n/a			R
	Silicon Tetrachloride	Tetrachlorosilane	SiCl <sub>4</sub>	C	0.2	R	R	R
	Silicon Tetrafluoride	Tetrafluorosilane	SiF <sub>4</sub>	T, C	n/a			R
	Trichlorosilane	TCS	SiHCl <sub>3</sub>	F, T, C	0.6	R	R	R
<b>Dopant</b>	Arsine		AsH <sub>3</sub>	F+, T+	15		R	R
	Boron Trifluoride	Trifluoroborane	BF <sub>3</sub>	T, C	2.2	R	R	R
	Boron-11 Trifluoride		<sup>11</sup> BFB <sub>3</sub>	T, C	2.2	R	R	R
	Diborane	Diboron Hexahydride	B <sub>2</sub> H <sub>6</sub>	F+, T+	n/a			R
	Phosphine	Phosphorus Hydride	PH <sub>3</sub>	F+, T+	34.6		R	R
	Trimethylboron	TMB	B(CH <sub>3</sub> ) <sub>3</sub>	T, F	4.1		R	R
<b>Etchant</b>	Boron Trichloride		BCl <sub>3</sub>	T, C	1.6	R	R	R
	Chlorine		Cl <sub>2</sub>	O, T, C	6.8		R	R
	Chlorine Trifluoride		ClF <sub>3</sub>	O, T, C	1.5	R	R	R
	Halocarbon 14	Tetrafluoromethane Carbon Tetrafluoride	CF <sub>4</sub>	NONE	n/a			
	Halocarbon 23	Trifluoromethane	CHF <sub>3</sub>	NONE	41.6		R	
	Halocarbon 32	Difluoromethane	CH <sub>2</sub> F <sub>2</sub>	F	14.2		R	
	Halocarbon 41	Methyl Fluoride	CH <sub>3</sub> F	F	3.81		R	
	Halocarbon 116	Hexafluoroethane	C <sub>2</sub> F <sub>6</sub>	NONE	30		R	
	Halocarbon 125	Pentafluoroethane	C <sub>2</sub> HF <sub>5</sub>	NONE	10.5		R	
	Halocarbon 218	Perfluoropropane	C <sub>3</sub> F <sub>8</sub>	NONE	7.7		R	
	Halocarbon C318	Octafluorocyclobutane	C <sub>4</sub> F <sub>8</sub>	NONE	2.7	R		
	Hydrogen Bromide		HBr	T, C	21		R	R
	Hydrogen Chloride		HCl	T, C	21		R	R
	Hydrogen Fluoride		HF	T+, C	1	R	R	R
	Nitrogen Trifluoride		NF <sub>3</sub>	O, Xn	n/a			R
	Sulphur Hexafluoride		SF <sub>6</sub>	NONE	21		R	
<b>Etchant (Laser)</b>	1% Fluoride, 1.25% Krypton bal Neon		1% F <sub>2</sub> , 1.25% Kr, Bal Ne	O, T, C	n/a			R
	1.2% Krypton, bal Neon		1.2% Kr, Bal Ne	NONE	n/a			R
<b>Atmospherics</b>	Argon		Ar	NONE	n/a			
	Helium		He	NONE	n/a			
	Hydrogen		H <sub>2</sub>	F+	n/a			
	Nitrogen		N <sub>2</sub>	NONE	n/a			
	Oxygen		O <sub>2</sub>	O	n/a			
	Xenon		Xe	NONE	n/a			
<b>Reactants</b>	Ammonia		NH <sub>3</sub>	T, C	8.6		R	R
	Carbon Dioxide		CO <sub>2</sub>	NONE	57.3		R	
	Carbon Monoxide		CO	F+, T	n/a			
	Nitrous Oxide		N <sub>2</sub> O	O	50.8		R	
	Sulphur Dioxide		SO <sub>2</sub>	T, C	3.3		R	R
	Tungsten Hexafluoride		WF <sub>6</sub>	T+, C	1.1	R	R	R