

Abbreviations & Symbols

Symbol	Chemical Name	Symbol	Chemical Name
Al ₂ O ₃	Aluminum Oxide	CH ₃ SH	Methyl Mercaptan
Ar	Argon	CH ₄	Methane
AsH ₃	Arsine	CHClF ₂	Chlorodifluoromethane (Halocarbon 22)
B ₁₁ F ₃	Boron 11 Trifluoride	CHCl ₂ F	Dichlorofluoromethane (Halocarbon 21)
B ₂ H ₆	Diborane	CHF ₃	Trifluoromethane (Halocarbon 23)
BCl ₃	Boron Trichloride	Cl ₂	Chlorine
BF ₃	Boron Trifluoride	CO	Carbon Monoxide
C ₂ ClF ₅	Chloropentafluoroethane (Halocarbon 115)	CO ₂	Carbon Dioxide
C ₂ Cl ₂ F ₄	1,2-Dichlorotetrafluoroethane (Halocarbon 114)	COCl ₂	Phosgene
C ₂ F ₆	Hexafluoroethane (Halocarbon 116)	COS	Carbonyl Sulfide
C ₂ H ₂	Acetylene	D ₂	Deuterium
C ₂ H ₂ F ₂	1,1-Difluoroethylene (Halocarbon 1132A)	Fe ₂ O ₃	Iron Oxide
C ₂ H ₃ ClF ₂	1-Chloro-1, 1-Difluoroethane (Halocarbon 142B)	H ₂	Hydrogen
C ₂ H ₄	Ethylene	H ₂ O	Water
C ₂ H ₄ F ₂	1,1-Difluoroethane (Halocarbon 152A)	H ₂ S	Hydrogen Sulfide
C ₂ H ₄ O	Ethylene Oxide	H ₂ SiCl ₂	Dichlorosilane
C ₂ H ₅ Cl	Ethyl Chloride	HCl	Hydrogen Chloride
C ₂ H ₆	Ethane	HD	Hydrogen Deuteride
C ₂ H ₆ O	Dimethyl Ether	He	Helium
C ₃ F ₈	Perfluoropropane (Halocarbon 218)	Hg	Mercury
C ₃ H ₄	Allene (Propadiene)	HSiCl ₃	Trichlorosilane
C ₃ H ₆	Propylene	K ₂ O	Potassium Oxide
C ₃ H ₆ O	Propylene Oxide	Kr	Krypton
C ₃ H ₆ O	Vinyl Methyl Ether	MgO	Magnesium Oxide
C ₃ H ₈	Propane	N ₂	Nitrogen
C ₄ F ₈	Octafluorocyclobutane (Halocarbon C-318)	N ₂ O	Nitrous Oxide
C ₄ H ₆	1,3-Butadiene	N ₂ O ₄	Nitrogen Tetroxide
C ₄ H ₆	Ethyl Acetylene	Na ₂ O	Sodium Oxide
C ₄ H ₈	1-Butene	Ne	Neon
C ₄ H ₈	cis-2-Butene	NH ₃	Ammonia
C ₄ H ₈	Isobutylene	NO	Nitric Oxide
C ₄ H ₈	Trans-2-Butene	NO ₂	Nitrogen Dioxide
C ₄ H ₁₀	Butane	O ₂	Oxygen
C ₄ H ₁₀	Isobutane	PF ₅	Phosphorous Pentafluoride
C ₅ H ₁₂	Isopentane	PH ₃	Phosphine
CaO	Calcium Oxide	SF ₆	Sulfur Hexafluoride
CBrF ₃	Bromotrifluoromethane (Halocarbon 13B1)	Si	Silicon
CClF ₃	Chlorotrifluoromethane (Halocarbon 13)	SiCl ₄	Silicon Tetrachloride
CCl ₂ FCClF ₂	1,1,2-Trichloro-1,2,2-Trifluoroethane (Halocarbon 113)	SiF ₄	Silicon Tetrafluoride
CCl ₂ F ₂	Dichlorodifluoromethane (Halocarbon 12)	SiH ₄	Silane
CCl ₃ F	Trichlorofluoromethane (Halocarbon 11)	SiO ₂	Silicon Dioxide
CF ₄	Tetrafluoromethane (Halocarbon 14)	SO ₂	Sulfur Dioxide
CH ₃ Cl	Methyl Chloride	Xe	Xenon

Abbreviations & Symbols Cont.

Symbol		Symbol	
A		G	
Å	Angstrom(s)	g	gram(s)
AA	Atomic Absorption	gal	gallon(s)
abs	absolute	GC	Gas Chromatography or Chromatograph
ACGIH	American Conference of Governmental Industrial Hygienists	GMIS	Gas Manufacturers Intermediate Standard
ASTM	American Society for Testing Materials	GPA	Gas Processors Association
atm	atmosphere(s)	H	
avg	average	Hall	Electrolytic Conductivity Detector
B		HAP	Hazardous Air Pollutants
bp	boiling point	HID	Helium Ionization Detector
Btu	British thermal unit(s)	hr	hour
C		Hz	hertz
CAA	Clean Air Act	I	
cal	calorie(s)	ICP	Inductively Coupled Plasma (Spectroscopy)
CAS	Chemical Abstract Services	ID	Identification or inside diameter
ccm	cubic centimeter(s) per minute	in, ins	inch(es)
ccs	cubic centimeter(s) per second	in ³ , cu in	cubic inch(es)
CEM	Continuous Emission Monitor	J	
cf	cubic feet	J	joule
CFCs	Chlorofluorocarbons	K	
CFR	Code of Federal Regulations	K	Kelvin
CGA	Compressed Gas Association	kg	kilogram(s)
cm	centimeter(s)	kPa	Kilo pascal(s)
cm ²	square centimeter	°K	degree(s) Kelvin
cm ³ , cc	cubic centimeter	L	
COA	Certificate of Analysis	L	liter(s)
COC	Certificate of Conformance	lb	pound(s)
CP	Chemically Pure	LC	Liquid Chromatography
Cp	specific heat at constant pressure	Lpm	liters per minute
Cv	specific heat at constant volume	M	
Cv	coefficient of flow	μ	micron(s), 10-5m
°C	degree(s) Celsius	m ³	cubic meter(s)
D		mA	milliampere
DID	Discharge Ionization Detector	max	maximum
DIN	Deutsche Industrie Normen (German Industrial Standards)	mg	milligram(s)
DISS	Diameter Index Safety System	min	minute(s)
DOT	Department of Transportation	ml	milliliter(s)
E		mm	millimeter(s)
ea	each	MNPT	Male National Pipe Thread
ECD	Electron Capture Detector	mol.wt.	molecular weight
EPA	Environmental Protection Agency	MOS	Metal Oxide Semiconductor
F		MW	molecular weight
°F	degree(s) Fahrenheit	mp	melting point
FID	Flame Ionization Detector	MS	Mass Spectrometry
FNPT	Female National Pipe Thread	MSD	Mass Selective Detector
F.O.B.	Freight on Board	MVCR	Male VCR
FPD	Flame Photometric Detector	MVFS	Male Vacuum Face Seal
ft	foot, feet	N	
ft ³ , cu ft	Cubic foot (feet)	N/A	not applicable
FTIR	Fourier Transform Infrared Spectrometer or Spectroscopy	nbp	normal boiling point
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act	NDIR	Non-Dispersive Infrared Analyzer

Abbreviations & Symbols Cont.

Symbol	Symbol		
NDUV	Non-Dispersive Ultraviolet Analyzer		
NER	normal evaporation rate		
NF	National Formulary		
NFPA	National Fire Protection Association		
NIST	National Institute of Standards and Technology		
nm	nanometer(s)		
No	number		
nom	nominal		
NOS	not otherwise specified		
NPD	Nitrogen/Phosphorous Detector		
NPT	National Pipe Thread		
NTP	Normal temperature and pressure		
NTRM	NIST Traceable Reference Material		
NMR	Nuclear Magnetic Resonance Spectroscopy		
O			
OD	outside diameter		
Ohm-cm	ohms centimeter		
OSHA	Occupational Safety and Health Administration		
oz	ounce(s)		
P			
Pa	pascal(s)		
PID	Photo Ionization Detector		
ppb	part(s) per billion		
ppba	part(s) per billion atomic		
ppbv	part(s) per billion by volume		
ppbw	part(s) per billion by weight		
ppm	part(s) per million		
ppma	part(s) per million atomic		
ppmv	part(s) per million by volume		
ppmw	part(s) per million by weight		
ppt	parts(s) per trillion		
ppta	Parts(s) per trillion atomic		
pptv	Parts(s) per trillion by volume		
pptw	Parts(s) per trillion by weight		
psi	pound(s)-force per square inch		
psia	pound(s)-force per square inch absolute		
psig	pound(s)-force per square inch gauge		
R			
Ra	Roughness average		
RFO	restricted flow orifice		
°R	degree(s) Rankine		
		S	
		SCC	standard cubic centimeters
		sccm	standard cubic centimeters per minute
		scs	standard cubic centimeters per second
		scfh	standard cubic feet per hour
		scfm	standard cubic feet per minute
		scfs	standard cubic feet per second
		sec	second(s)
		SFC	Supercritical Fluid Chromatography
		SFE	Supercritical Fluid Extraction
		slpm	standard liters per minute
		sp. gr.	specific gravity
		sp. vol.	specific volume
		SRM	Standard Reference Materials
		SS	Stainless Steel
		Stn. Stl.	Stainless Steel
		STEL	Short Term Exposure Limit
		STP	standard temperature and pressure
		T	
		TCD	Thermal Conductivity Detector
		TEA	Transversely Excited Atmosphere
		THC	Total Hydrocarbon Content
		TLV	Threshold Limit Value
		tp	triple point
		TPH	Total Petroleum Hydrocarbons
		TWA	Time Weighted Average
		U	
		UHP	Ultra High Purity
		UN	United Nations
		USP	United States Pharmacopoeia
		UPC	Ultra Pure Carrier
		V	
		VAC	volts alternating current
		VDC	volts direct current
		VOC	Volatile Organic Compounds
		Vol	volume
		Vol%	volume percent
		W	
		w.c.	water column pressure
		wt.	weight
		wt%	weight percent
		wt. ppm	weight parts per million
		Y	
		yd	yard(s)
		>	greater than
		<	less than