



ASIMPTOTE FluidProp 3.2: Pure Fluids

Available Fluids

Thermodynamic Models:

GasMix	G
IF97	I
RefProp 10	R
freeStanMix	F
StanMix	S
TPSI	T
PCP-SAFT	P

Fluids in black come with the Basic version of FluidProp (free for MS-Windows version)
 Fluids in grey come with the specified thermodynamic library (not free)
 Fluids in orange are delivered as special sets (not free)
 Fluids in blue are delivered as extended set (not free)
 RefProp 10, see NIST site for functionality

	G	I	R	F	S	T	P		G	I	R	F	S	T	P		G	I	R	F	S	T	P
Linear alkanes																							
methane	G		R	F	S	T	P																
ethane	G		R	F	S	T	P																
propane	G		R	F	S	T	P																
butane	G		R	F	S	T	P																
pentane	G		R	F	S	T	P																
hexane	G		R	F	S	T	P																
heptane	G		R	F	S	T	P																
octane	G		R	F	S	T	P																
nonane			R	F	S		P																
decane			R	F	S		P																
undecane			R	F	S		P																
dodecane			R	F	S		P																
hexadecane			R	F	S		P																
docosane			R																				
Branched alkanes																							
isobutane			R	F	S	T	P																
isopentane			R	F	S	T	P																
neopentane			R	F	S		P																
22-dimethylbutane			R																				
23-dimethylbutane			R																				
3-methylpentane			R																				
isohexane			R																				
isooctane			R																				
Cyclic alkanes																							
cyclopropane			R	F	S		P																
cyclobutane				F	S		P																
cyclopentane			R	F	S		P																
cyclohexane			R	F	S		P																
cycloheptane				F	S		P																
cyclooctane				F	S		P																
methylcyclopentane				F	S		P																
methylcyclohexane			R	F	S		P																
11-dimethylcyclopentane				F	S		P																
11-dimethylcyclohexane				F	S		P																
propylcyclohexane			R																				
Aromatics																							
benzene			R	F	S		P																
toluene			R	F	S		P																
ethylbenzene			R	F	S		P																
butylbenzene				F	S		P																
m-xylene			R	F	S		P																
o-xylene			R	F	S		P																
p-xylene			R	F	S		P																
biphenyl				F	S		P																
Alcohols																							
methanol	G		R	F	S		P																
ethanol	G		R	F	S		P																
1-propanol				F	S		P																
2-propanol				F	S		P																
1-butanol				F	S		P																
2-butanol				F	S		P																
1-octanol				F	S		P																
Amino alcohols																							
ethanolamine			R																				
diethanolamine			R																				
Ketones																							
acetone			R	F	S		P																
butanone				F	S		P																
Alkenes																							
ethene (ethylene)	G		R	F	S		P																
propene (propylene)			R	F	S		P																
1-butene			R	F	S		P																
cis-butene			R																				
isobutene			R																				
trans-butene			R																				
1-pentene			R	F	S		P																
propadiene			R																				
13-butadiene			R	F	S		P																
cyclobutene			R																				
Alkynes																							
ethyne (acetylene)	G		R	F	S		P																
propyne (methylacetylene)			R	F	S		P																
1-butyne (ethylacetylene)			R	F	S		P																
Esters																							
dimethyl carbonate			R	F	S		P																
Ethers																							
dimethylether	G		R	F	S		P																
diethylether			R	F	S		P																
diphenyl ether				F	S		P																
propylene oxide			R																				
ethylene oxide			R																				
Noble gases																							
helium	G		R																				
neon	G		R	F	S		P																
argon	G		R	F	S		P																
krypton			R	F	S		P																
xenon			R	F	S		P																
Halogenes																							
fluorine	G		R																				
chlorine	G		R																				
bromine	G																						
Inorganics																							
ammonia	G		R	F	S	T	P																
carbon dioxide	G		R	F	S		P																
carbon monoxide	G		R	F	S		P																
carbon disulfide	G																						
carbon tetrachloride	G																						
carbonyl sulfide	G		R	F	S		P																
nitrogen	G		R	F	S		P																
nitrogen dioxide	G																						
nitrogen trifluoride			R																				
nitrous oxide (N ₂ O)	G		R																				
nitric oxide (NO)	G																						
nitrosyl chloride (NOCl)	G																						
oxygen	G		R	F	S		P																
sulfur dioxide	G		R	F	S		P																
sulfur hexafluoride	G		R																				
hydrogen	G		R	F	S		P																
ortho-hydrogen			R																				
para-hydrogen			R																				
hydrogen chloride	G		R																				
hydrogen cyanide	G																						
hydrogen fluoride	G																						
hydrogen peroxide	G																						
hydrogen sulfide	G		R	F	S		P																
deuterium			R																				
water	G	I	R	F	S	T	P																
heavy water			R																				
trichloro borane	G																						
trifluoro borane	G																						
silane	G																						
silicon tetrafluoride	G																						
Siloxanes																							
MM			R	F	S		P																
MDM			R	F	S		P																
MD2M			R	F	S		P																
MD3M			R	F	S		P																
MD4M			R	F	S		P																
MD5M				F	S		P																
MD6M				F	S		P																
D3				F	S		P																
D4			R	F	S		P																
D5			R	F	S		P																
D6			R	F	S		P																
Liquid metals																							
lithium							T																
sodium							T																
potassium							T																
rubidium							T																
cesium							T																
mercury							T																
FAME																							
methyl stearate (C19H38O2)			R																				
methyl oleate (C19H36O2)			R																				
methyl linoleate (C19H34O2)			R																				
methyl linolenate (C19H32O2)			R																				
methyl palmitate (C17H34O2)			R																				
Hydro(chloro)fluoroolefins (H(C)FO's)																							
HCFO-1224yd-Z (CF3CFCHCl)			R	F	S		P																
HCFO-1233zd-E (C3ClF3H2)			R	F	S		P																
HCFO-1233zd-Z (C3ClF3H2)				F	S		P																
HCFO-1233xf (CF3CClCH2)				F	S		P																
HFO-1123 (CF2CHF)			R																				
HFO-1216 (C3F6)			R																				
HFO-1234yf (C3F4H2)			R	F	S		P																
HFO-1234ze-E (C3F4H2)			R	F	S		P																
HFO-1234ze-Z (C3F4H2)			R	F	S		P																
HFO-1243zf (C3F3H3)			R	F	S		P																
HFO-1336mzz-Z (C4F6H2)			R	F	S		P																
HFO-1336mzz-E (C4F6H2)				F	S		P																
Hydrofluoroethers (HFE's)																							
HFE-143a (RE143a)			R																				
HFE-245mc (RE245cb2)			R	F	S		P																
HFE-245fa2 (RE245fa2)			R																				
HFE-347mcc (RE347mcc)			R	F	S		P																
Perfluorocarbons (PFC's)																							
perfluoromethane (R14, CF4)			R	F	S		P																
perfluoroethane (R116, C2F6)			R	F	S		P																
perfluoropropane (R218, PP30, C3F8)			R	F	S		P																
perfluorobutane (C4F10)			R	F	S		P																
perfluoropentane (FC87, PP50, C5F12)			R	F	S		P																
perfluorohexane (FC72, C6F14)			R	F	S		P																
perfluoroheptane (PF 5070, PP7, C7F16)				F	S		P																
perfluorooctane (PF 5080, C8F18)				F	S		P																
perfluorononane (C9F20)				F	S		P																
perfluoro-2-methylpentane (PP1)				F	S		P																
PP80 (perfluoro-2-methyl-3-ethylpentane)				F	S		P																
PP90 (perfluoro-2,4-dimethyl-3-ethylpentane)				F	S		P																
perfluorocyclobutane (RC318, c-C4F8)			R	F	S		P																
perfluorocyclohexane (PFCH,c-C6F12)				F	S		P																
perfluoromethylcyclohexane (PP2, c-C7F14)				F	S		P																
perfluorodimethylcyclohexane (PP3, c-C8F16)				F	S		P																
perfluorodecalin (PP6)				F	S		P																
perfluoromethyldecalin (PP9)				F	S		P																
perfluoroperhydrofluorene (PP10)				F	S		P																
perfluorobenzene (CP28, hexafluorobenzene,C6H6)				F	S		P																
perfluorotoluene (C7F8)				F	S		P																
Hydrofluorocarbons (HFC's)																							
fluoroethane (R161, C2H5F)			R																				
R23 (CHF3)			R	F	S	T	P																
R32 (CH2F2)			R	F	S		P																
R41 (CH3F)			R																				
R125 (CHF2CF3)			R	F	S		P																
R134a (CH2FCF3)			R	F	S		P																
R143a (CH3CF3)			R	F	S		P																
R152a (CH3CHF2)			R	F	S		P																
R227ea (CF3CHFCCF3)			R																				
R236ea (CF3CHCFCHF2)			R																				
R236fa (CF3CH2CF3)			R																				
R245ca (CHF2CHF2CH2F)			R																				
R245fa (CHF2CH2CF3)			R	F	S		P																
R365mfc (CH3CF2CH2CF3)			R																				
Hydrochlorocarbons (HCC's)																							
R40 (CH3Cl)			R																				
R150 (C2H4Cl2)			R	F	S		P																
Chlorofluorocarbons (CFC's)																							
R11 (CCl3F)			R	F	S	T	P																
R12 (CCl2F2)			R	F	S	T	P																
R13 (CClF3)			R	F	S	T	P																
R113 (C2Cl3F3)			R	F	S		P																
R114 (C2Cl2F4)			R	F	S		P																
R115 (C2ClF5)			R	F	S		P																
Hydrochlorofluorocarbons (HCFC's)																							
R21 (CHCl2F)			R																				
R22 (CHClF2)			R	F	S	T	P																
R123 (CHCl2CF3)			R	F	S		P																
R124 (CHClFCF3)			R	F	S		P																
R141b (C2H3Cl2F)			R	F	S		P																
R142b (C2H3ClF2)			R	F	S		P																
Other																							
chlorobenzene			R	F	S		P																
titanium tetrachloride				F	S		P																
Novoc 649			R	F	S		P																
ethylene glycol			R	F	S																		



ASIMPTOTE FluidProp: Mixtures

Available Fluids

Thermodynamic Models:

GasMix	G	Fluids in black come with the free version of FluidProp
IF97	I	Fluids in grey come with the specified thermodynamic library (not free)
RefProp 10	R	Fluids in orange are delivered as special sets (not free)
freeStanMix	F	For RefProp 10, see NIST site for functionality
StanMix	S	
TPSI	T	
PCP-SAFT	P	

Air

	G	I	R	F	S	T	P
air			R	F	S	T	
moist. air						T	

Siloxane mixtures

MM/MDM				F	S		
MM/MD2M				F	S		
MM/MD3M				F	S		
MM/MD4M				F	S		
MM/MD5M				F	S		
MM/MD6M				F	S		
MDM/MD2M				F	S		
MDM/MD3M				F	S		
MDM/MD4M				F	S		
MDM/MD5M				F	S		
MDM/MD6M				F	S		
MD2M/MD3M				F	S		
MD2M/MD4M				F	S		
MD2M/MD5M				F	S		
MD2M/MD6M				F	S		
MD3M/MD4M				F	S		
MD3M/MD5M				F	S		
MD3M/MD6M				F	S		
MD4M/MD5M				F	S		
MD4M/MD6M				F	S		
MD5M/MD6M				F	S		
MM/D3				F	S		
MM/MDM/MD2M				F	S		
MM/MDM/MD3M				F	S		
MM/MDM/MD4M				F	S		
MM/MDM/MD2M/MD3M				F	S		
MM/MDM/MD2M/MD3M/MD4M/MD5M/MD6M				F	S		
D3/D4/D5/D6				F	S		
D4/D3				F	S		
D4/D5				F	S		
D4/D6				F	S		
D5/D3				F	S		
D5/D6				F	S		
D6/D3				F	S		
silox 1				F	S		
silox 2				F	S		
silox 3				F	S		

Siloxane/perfluorocarbon mixtures

MM/PP2				F	S		
MDM/PP2				F	S		
MD2M/PP2				F	S		
MD3M/PP2				F	S		
MD4M/PP2				F	S		
MM/CP28				F	S		
D4/CP28				F	S		
D4/PFCH				F	S		

Refrigerant mixtures

R113/ethanol				F	S		
R114/ethanol				F	S		
R134a/R116			R	F	S		
R134a/R142b			R	F	S		
R14/R23			R	F	S		
R401A			R				
R401B			R				
R401C			R				
R402A			R				
R402B			R				
R403A			R				
R403B			R				
R404A			R				
R405A			R				
R406A			R				
R407A			R	F	S		
R407B			R				
R407C			R				
R407D			R				
R407E			R				
R408A			R				
R409A			R				
R409B			R				
R410A			R	F	S		
R410B			R	F	S		
R411A			R				
R411B			R				
R412A			R				
R413A			R				
R414A			R				
R414B			R				
R415A			R				
R415B			R				
R416A			R				
R417A			R				
R418A			R				
R419A			R				
R420A			R				
R421A			R				
R421B			R				
R422A			R				
R422B			R				
R422C			R				
R422D			R				
R423A			R				
R424A			R				
R425A			R				
R426A			R				
R427A			R				
R428A			R				
R429A			R				
R430A			R				
R431A			R				
R432A			R				
R433A			R				
R434A			R				
R435A			R				
R436A			R				
R436B			R				
R437A			R				
R438A			R				
R500			R				
R501			R				
R502			R				
R503			R				
R504			R				
R507A			R				
R508A			R				
R508B			R				
R509A			R				
R510A			R				

Hydrocarbon mixtures

benzene/cyclohexane				F	S		
benzene/cyclohexane/hexane				F	S		
benzene/ethylbenzene				F	S		
benzene/hexane				F	S		
benzene/toluene				F	S		
butane/hexane				F	S		
butane/pentane				F	S		
ethylbenzene/toluene				F	S		
hexane/cyclohexane				F	S		
isobutane/isopentane				F	S		
pentane/hexane				F	S		
propane/pentane				F	S		

CO2-mixtures

carbon dioxide/benzene				F	S		
carbon dioxide/butane				F	S		
carbon dioxide/hexane				F	S		
carbon dioxide/pentane				F	S		
carbon dioxide/propane				F	S		
carbon dioxide/toluene				F	S		

Alcohol/water mixtures

methanol/water				F	S		
ethanol/water						S	

Natural gas mixtures

Amarillo Gas						R	
Gulf Coast Gas						R	
Ekofisk Gas						R	
High CO2 and Nitrogen Gas						R	
High Nitrogen Gas						R	

Other mixtures

methanol/benzene							S
nitrogen/oxygen						F	S

