Carbon Tetrachloride

Other names:

Benzenoform
Benzinoform
CCl4
Carbon chloride (CCl4)
Carbon tet
Carbona
Chlorid uhlicity
Czterochlorek wegla
ENT 27164
ENT 4,705
Fasciolin
Flukoids
Freon 10
Halon 1040
Katharin
Methane tetrachloride
Methane, tetrachloro-
NSC 97063
Necatorina
Necatorine
Perchloromethane
R 10
R 10 (Refrigerant)
R-10
REFRIGERANT-10
Rcra waste number U211
Seretin
Tetrachloorkoolstof
Tetrachloormetaan
Tetrachlorkohlenstoff, tetra
Tetrachlormethan
Tetrachlorocarbon
Tetrachlorure de carbone
Tetraclorometano
Tetracloruro di carbonio
Tetrafinol
Tetraform
Tetrasol
Thawpit
UN 1846

	Univerm
	Vermoestricid
	tetrachloromethane
Inchi:	InChI=1S/CCl4/c2-1(3,4)5
InchiKey:	VZGDMQKNWNREIO-UHFFFAOYSA-N
Formula:	CCl4
SMILES:	ClC(Cl)(Cl)Cl
Mol. weight [g/mol]:	153.82
CAS:	56-23-5

Physical Properties

Property code	Value	Unit	Source
af	0.1940		PSRK revision IV (2005), critical constants and acentric factors of 1000 components
af	0.1930		KDB
af	0.1870		ChemSep v8.3 pure component data
chl	-359.90	kJ/mol	NIST Webbook; Hu and Sinke, 1969, 2
chl	-365.70 ± 8.40	kJ/mol	NIST Webbook; Smith, Bjellerup, et al., 1953
dm	0.00	debye	KDB
dm	0.00	debye	ChemSep v8.3 pure component data
dvisc	0.0009096	Pa×s	Densities and Viscosities of Binary Liquid Mixtures of Trichloroethylene and Tetrachloroethylene with Some Polar and Nonpolar Solvents
dvisc	0.0009020	Pa×s	Ion Pair and Triple Ion Formation by Some Tetraalkylammonium Iodides in Binary Mixtures of Carbon Tetrachloride + Nitrobenzene
ea	2.12 ± 0.10	eV	NIST Webbook; Gaines, Kay, et al., 1966
ea	2.00 ± 0.20	eV	NIST Webbook; Dispert and Lacmann, 1978
ea	2.00 ± 0.20	eV	NIST Webbook; Lacmann, Maneira, et al., 1983
ea	0.80 ± 0.34	eV	NIST Webbook; Staneke, Groothuis, et al., 1995
epr	2.29		NCMS SOLV-DB

gf	-53.54	kJ/mol	ChemSep v8.3 pure component data
gf	-58.28	kJ/mol	KDB
gyrad	3.4580		KDB
hf	-95.60 ± 2.50	kJ/mol	NIST Webbook; Manion, 2002
hf	-115.00 ± 3.00	kJ/mol	NIST Webbook; Lord and Pritchard, 1969
hf	-94.00 ± 2.00	kJ/mol	NIST Webbook; Mendenhall, Golden, et al., 1973
hf	-125.00 ± 4.60	kJ/mol	NIST Webbook; Lord and Pritchard, 1969
hf	-100.50	kJ/mol	KDB
hf	-95.81	kJ/mol	ChemSep v8.3 pure component data
hf	-97.59 ± 0.75	kJ/mol	Active Thermochemical Tables 1.112, gas-phase enthalpies of formation
hf	-103.00 ± 7.90	kJ/mol	NIST Webbook; Baibuz, 1961
hfl	-128.10 ± 2.50	kJ/mol	NIST Webbook; Manion, 2002
hfl	-128.40	kJ/mol	NIST Webbook; Hu and Sinke, 1969, 2
hfus	7.72	kJ/mol	Joback Method
hvap	30.00 ± 0.01	kJ/mol	NIST Webbook; Mathews, 1926
hvap	29.96	kJ/mol	NCMS SOLV-DB
hvap	32.55 ± 0.07	kJ/mol	NIST Webbook; Manion, 2002
hvap	32.40	kJ/mol	NIST Webbook; Majer, Sváb, et al., 1980
hvap	32.54 ± 0.10	kJ/mol	NIST Webbook; Konicek, 1973
hvap	32.43 ± 0.03	kJ/mol	NIST Webbook; Wadso, 1966
hvap	32.41 ± 0.02	kJ/mol	NIST Webbook; Hildenbrand and McDonald, 1959
hvap	32.54	kJ/mol	NIST Webbook; Majer and Svoboda, 1985
ie	11.50 ± 0.10	eV	NIST Webbook; Kime, Driscoll, et al., 1987
ie	11.47 ± 0.01	eV	NIST Webbook; N/A
ie	11.30	eV	NIST Webbook; Von Niessen, Asbrink, et al., 1982
ie	11.47 ± 0.08	eV	NIST Webbook; Bassett and Lloyd, 1971
ie	11.47	eV	NIST Webbook; Dewar and Worley, 1969

ie	11.47 ± 0.01	eV	NIST Webbook; Watanabe, 1957
ie	11.00 ± 1.00	eV	NIST Webbook; Baker and Tate, 1938
ie	11.69	eV	NIST Webbook; Kimura, Katsumata, et al., 1981
ie	11.69	eV	NIST Webbook; Dixon, Murrell, et al., 1971
log10ws	-2.31		Estimated Solubility Method
log10ws	-2.30		Aqueous Solubility Prediction Method
logp	2.830		NCMS SOLV-DB
mcvol	73.910	ml/mol	McGowan Method
nfpah	%!d(float64=4)		KDB
pc	4540.00	kPa	IUPAC Vapor-Liquid Critical Properties of Elements and Compounds, part 10
pc	4559.62	kPa	PSRK revision IV (2005), critical constants and acentric factors of 1000 components
pc	4557.00	kPa	ChemSep v8.3 pure component data
pc	4516.00	kPa	KDB
pc	4493.00 ± 50.00	kPa	NIST Webbook; Altunin, Geller, et al., 1987
pc	4557.60 ± 10.13	kPa	NIST Webbook; Campbell and Chatterjee, 1969
pt	1.12	kPa	ChemSep v8.3 pure component data
rhoc	557.61 ± 4.61	kg/m3	NIST Webbook; Lewis, 1953
rhoc	557.61 ± 3.08	kg/m3	NIST Webbook; Kordes, 1954
rhoc	556.84 ± 3.08	kg/m3	NIST Webbook; Campbell and Chatterjee, 1969
rinpol	663.00		NIST Webbook; Weber, 1986
rinpol	659.00		NIST Webbook; MHA, 9999
rinpol	680.70		NIST Webbook; Reddy, Dutoit, et al., 1992
rinpol	680.00		NIST Webbook; Dutoit, 1991
rinpol	667.00		NIST Webbook; Castello and Gerbino, 1988
rinpol	673.00		NIST Webbook; Castello and Gerbino, 1988
rinpol	662.00		NIST Webbook; Castello and Gerbino, 1988

rinpol	648.00	NIST Webbook; Pacáková, Vojtechová, et al., 1988
rinpol	680.00	NIST Webbook; Tiess, 1984
rinpol	672.00	NIST Webbook; Winskowski, 1983
rinpol	628.00	NIST Webbook; Goebel, 1982
rinpol	663.10	NIST Webbook; Riedo, Fritz, et al., 1976
rinpol	647.00	NIST Webbook; Vernon, 1971
rinpol	679.00	NIST Webbook; Brown, Chapman, et al., 1968
rinpol	669.00	NIST Webbook; Rohrschneider, 1966
rinpol	656.00	NIST Webbook; Rohrschneider, 1966
rinpol	682.00	NIST Webbook; Rohrschneider, 1966
rinpol	691.00	NIST Webbook; von Kováts, 1958
rinpol	671.00	NIST Webbook; von Kováts, 1958
rinpol	657.00	NIST Webbook; Shimadzu, 2003
rinpol	645.70	NIST Webbook; Helmig, Pollock, et al., 1996
rinpol	661.00	NIST Webbook; Helmig, Pollock, et al., 1996
rinpol	680.50	NIST Webbook; Dallos, Sisak, et al., 2000
rinpol	652.00	NIST Webbook; Schreyen, Dirinck, et al., 1976
rinpol	661.00	NIST Webbook; Shimadzu, 2003, 2
rinpol	611.00	NIST Webbook; Dufka, Malinsky, et al., 1971
rinpol	618.00	NIST Webbook; Dufka, Malinsky, et al., 1971
rinpol	651.00	NIST Webbook; Vernon, 1971
rinpol	675.00	NIST Webbook; Anderson, 1968
rinpol	660.00	NIST Webbook; Dewulf, Van Langenhove, et al., 1997
rinpol	656.00	NIST Webbook; Isidorov and Jdanova, 2002
rinpol	663.00	NIST Webbook; Health Safety Executive, 2000
rinpol	661.00	NIST Webbook; Huang, Liang, et al., 1996

rinpol	654.00	NIST Webbook; Ciccioli, Cecinato, et al., 1992
rinpol	645.00	NIST Webbook; Misharina, Golovnya, et al., 1991
rinpol	645.00	NIST Webbook; Habu, Flath, et al., 1985
rinpol	658.00	NIST Webbook; Zenkevich, 2001
rinpol	661.00	NIST Webbook; Flanagan, Streete, et al., 1997
rinpol	664.00	NIST Webbook; Sorimachi, Tanabe, et al., 1995
rinpol	658.00	NIST Webbook; Zenkevich, Korolenko, et al., 1995
rinpol	645.00	NIST Webbook; Ciccioli, Cecinato, et al., 1994
rinpol	645.00	NIST Webbook; Ciccioli, Brancaleoni, et al., 1993
rinpol	661.00	NIST Webbook; Strete, Ruprah, et al., 1992
rinpol	659.00	NIST Webbook; Strete, Ruprah, et al., 1992
rinpol	664.00	NIST Webbook; Weller and Wolf, 1989
rinpol	646.00	NIST Webbook; Waggott and Davies, 1984
rinpol	658.00	NIST Webbook; Waggott and Davies, 1984
rinpol	672.00	NIST Webbook; Waggott and Davies, 1984
rinpol	673.00	NIST Webbook; Waggott and Davies, 1984
rinpol	659.00	NIST Webbook; Ramsey and Flanagan, 1982
rinpol	649.00	NIST Webbook; Heydanek and McGorrin, 1981
rinpol	659.00	NIST Webbook; MSDC-RI
rinpol	645.00	NIST Webbook; MSDC-RI
rinpol	658.00	NIST Webbook; MSDC-RI
rinpol	645.70	NIST Webbook; MSDC-RI
rinpol	680.50	NIST Webbook; MSDC-RI
rinpol	673.00	NIST Webbook; MSDC-RI
rinpol	628.00	NIST Webbook; MSDC-RI
rinpol	656.00	NIST Webbook; MSDC-RI
ripol	888.00	NIST Webbook; Goebel, 1982
ripol	908.00	NIST Webbook; Shimadzu, 2003, 2
ripol	872.00	NIST Webbook; MacLeod and Pieris, 1981

ripol	886.00		NIST Webbook; Ramsey and Flanagan, 1982
ripol	888.00		NIST Webbook; Waggott and Davies, 1984
ripol	886.00		NIST Webbook; Zenkevich, Korolenko, et al., 1995
ripol	864.00		NIST Webbook; Soria, Martinez-Castro, et al., 2008
ripol	900.00		NIST Webbook; Shimadzu Corporation, 2003
ripol	900.00		NIST Webbook; Shimadzu, 2012
ripol	900.66		NIST Webbook; Castello and Gerbino, 1988
ripol	879.00		NIST Webbook; Bianchi, Careri, et al., 2007
ripol	868.00		NIST Webbook; Shimadzu, 2003
ripol	895.00		NIST Webbook; Rohrschneider, 1966
ripol	886.54		NIST Webbook; Castello and Gerbino, 1988
ripol	902.20		NIST Webbook; Castello and Gerbino, 1988
sl	219.20	J/mol×K	NIST Webbook; Stull, 1937
sl	214.39	J/mol×K	NIST Webbook; Hicks, Hooley, et al., 1944
sl	205.40	J/mol×K	NIST Webbook; Latimer, 1922
tb	349.85 ± 0.50	K	NIST Webbook; Hammond and Stokes, 1955
tb	349.85 ± 0.30	K	NIST Webbook; Sanchez, Guiglion, et al., 1969
tb	349.75 ± 0.30	K	NIST Webbook; Few and Smith, 1949
tb	349.65 ± 0.30	K	NIST Webbook; Earp and Glasstone, 1935
tb	349.83 ± 0.05	K	NIST Webbook; Zmaczynski, 1936
tb	349.85 ± 0.20	K	NIST Webbook; Stull, 1937
tb	349.15 ± 1.00	K	NIST Webbook; Banks, Emel«65533»us, et al., 1948
tb	349.90 ± 0.30	K	NIST Webbook; Turkevich and Smyth, 1940
tb	349.75 ± 0.50	K	NIST Webbook; Bates, Hazzard, et al., 1941
tb	349.65 ± 0.50	K	NIST Webbook; McGovern, 1943
tb	348.40 ± 1.50	K	NIST Webbook; Schiff, 1884

tb	349.90 ± 0.20	K	NIST Webbook; Timmermans, 1910
tb	349.90 ± 0.20	K	NIST Webbook; Timmermans, 1911
tb	349.89 ± 0.30	K	NIST Webbook; Grimm and Patrick, 1923
tb	349.62 ± 0.20	K	NIST Webbook; Williams and Daniels, 1924
tb	349.62 ± 0.30	K	NIST Webbook; Williams and Daniels, 1925
tb	349.87 ± 0.20	K	NIST Webbook; Mathews, 1926
tb	349.90 ± 0.50	K	NIST Webbook; Lecat, 1926
tb	349.90 ± 0.50	K	NIST Webbook; Lecat, 1927, 2
tb	349.90 ± 0.30	K	NIST Webbook; Lecat, 1949
tb	349.90 ± 0.50	K	NIST Webbook; Lecat, 1927
tb	349.90 ± 0.40	K	NIST Webbook; McCullough and Phipps, 1928
tb	350.20 ± 0.60	K	NIST Webbook; McCullough and Phipps, 1928
tb	350.00 ± 0.20	K	NIST Webbook; McCullough and Phipps, 1928
tb	350.00 ± 0.20	K	NIST Webbook; McCullough and Phipps, 1928
tb	349.55 ± 0.20	K	NIST Webbook; Smyth and Engel, 1929
tb	349.86 ± 0.30	K	NIST Webbook; Grimm, 1929
tb	349.90 ± 0.25	K	NIST Webbook; Marti, 1930
tb	349.79	K	ChemSep v8.3 pure component data
tb	349.90	K	KDB
tb	349.85	K	NCMS SOLV-DB
tb	350.20 ± 0.50	K	NIST Webbook; Joshi, Aminabhavi, et al., 1990
tb	349.84 ± 0.10	K	NIST Webbook; Kato, Yamaguchi, et al., 1990
tb	349.00	K	NIST Webbook; American Tokyo Kasei, 1988
tb	349.35 ± 0.30	K	NIST Webbook; Manjeshwar and Aminabhavi, 1988
tb	350.62 ± 0.05	K	NIST Webbook; Altunin, Geller, et al., 1987

tb	349.35 ± 0.50	K	NIST Webbook; Aminabhavi, Manjeshwar, et al., 1987
tb	349.35 ± 0.50	K	NIST Webbook; Manjeshwar and Aminabhavi, 1987
tb	349.90	K	NIST Webbook; Majer and Svoboda, 1985
tb	349.98 ± 0.30	K	NIST Webbook; Linek, 1983
tb	349.98 ± 0.10	K	NIST Webbook; Linek, 1983, 2
tb	350.10 ± 0.30	K	NIST Webbook; Aminabhavi, Patel, et al., 1982
tb	349.90 ± 0.50	K	NIST Webbook; Schindler, Plank, et al., 1977
tb	349.85 ± 0.50	K	NIST Webbook; Ezhov, Golovko, et al., 1976
tb	349.60 ± 0.30	K	NIST Webbook; Wisniak and Tamir, 1976
tb	349.84 ± 0.06	K	NIST Webbook; Boublik and Aim, 1972
tb	350.00 ± 0.50	K	NIST Webbook; Nagata and Ohta, 1971
tb	348.70 ± 0.30	K	NIST Webbook; Jain, Gupta, et al., 1970
tb	349.85 ± 0.30	K	NIST Webbook; Frontasev and Shraiber, 1969
tb	349.60 ± 0.50	K	NIST Webbook; Stearn and Smyth, 1934
tb	349.88 ± 0.20	K	NIST Webbook; Fried, Franceschetti, et al., 1968
tb	349.60 ± 0.20	K	NIST Webbook; Kemula, Buchowski, et al., 1968
tb	349.85 ± 0.20	K	NIST Webbook; Kind, Kahnt, et al., 1968
tb	349.80 ± 0.15	K	NIST Webbook; Findlay, Keniry, et al., 1967
tb	349.85 ± 0.20	K	NIST Webbook; Katti, Chaudhri, et al., 1966
tb	349.85 ± 0.06	K	NIST Webbook; Katti and Prakash, 1966
tb	349.90 ± 0.20	K	NIST Webbook; Subbarao and Rao, 1966
tb	349.55 ± 0.40	K	NIST Webbook; Deshpande and Pandya, 1965
tb	349.80 ± 0.15	K	NIST Webbook; Findlay and Kidman, 1965
tb	349.90 ± 0.30	K	NIST Webbook; Fort and Moore, 1965
tb	349.85 ± 0.30	K	NIST Webbook; Nagata, 1965

tb	349.90 ± 0.40	K	NIST Webbook; Shraiber and Pechenyuk, 1965
tb	350.10 ± 0.40	K	NIST Webbook; Vijayaraghavan, Deshpande, et al., 1965
tb	349.90 ± 0.40	K	NIST Webbook; Agarwal and Mene, 1963
tb	349.85 ± 0.30	K	NIST Webbook; Subbarao and Rao, 1963
tb	349.76 ± 0.20	K	NIST Webbook; Yuan and Lu, 1963
tb	349.83 ± 0.20	K	NIST Webbook; Paraskevopoulos and Missen, 1962
tb	350.05 ± 0.30	K	NIST Webbook; Yen and Reed, 1959
tb	349.85 ± 0.20	K	NIST Webbook; Prince and Hunter, 1957
tb	349.00 ± 1.50	K	NIST Webbook; Walling and Miller, 1957
tb	349.45 ± 0.20	K	NIST Webbook; Holland, Roberts, et al., 1956
tb	349.80 ± 0.15	K	NIST Webbook; Brown and Smith, 1955
tb	349.95 ± 0.30	K	NIST Webbook; Dunlop, 1955
tb	349.87 ± 0.15	K	NIST Webbook; Hoeppener and Antropoff, 1931
tb	350.15 ± 0.40	K	NIST Webbook; Hammond and Stokes, 1955
tb	350.05 ± 0.50	K	NIST Webbook; Neff and Hickman, 1955
tb	349.90 ± 0.20	K	NIST Webbook; Grunberg, 1954
tb	349.81 ± 0.10	K	NIST Webbook; Scatchard and Ticknor, 1952
tb	349.65 ± 1.00	K	NIST Webbook; Overberger, Arond, et al., 1951
tb	349.90 ± 0.30	K	NIST Webbook; Mumford and Phillips, 1950
tb	349.90 ± 0.07	K	NIST Webbook; Dreisbach and Martin, 1949
tb	349.90 ± 0.20	K	NIST Webbook; Dreisbach and Shrader, 1949
tb	349.90 ± 0.30	K	NIST Webbook; Friend and Hargreaves, 1943
tb	349.89 ± 0.05	K	NIST Webbook; Gross and Saylor, 1931
tb	350.15 ± 0.50	K	NIST Webbook; Beggerow and Harteck, 1944
tb	349.94 ± 0.30	K	NIST Webbook; Campbell and Dulmage, 1948

tb	349.90 ± 0.20	K	NIST Webbook; Coulson and Herington, 1948
tb	349.85 ± 0.30	K	NIST Webbook; Jones, Bowden, et al., 1948
tb	349.75 ± 0.40	K	NIST Webbook; Nitta and Seki, 1948
tb	419.40 ± 0.40	K	NIST Webbook; Lecat, 1947
tb	350.02 ± 0.30	K	NIST Webbook; Williams, 1946
tb	349.95 ± 0.30	K	NIST Webbook; French and Trew, 1945
tc	556.36 ± 0.20	K	NIST Webbook; Altunin, Geller, et al., 1987
tc	556.60	K	KDB
tc	558.35 ± 5.00	K	NIST Webbook; Livingston, Morgan, et al., 1908
tc	556.30 ± 0.20	K	NIST Webbook; Campbell and Chatterjee, 1969
tc	556.40	K	NIST Webbook; Majer and Svoboda, 1985
tc	556.30	K	IUPAC Vapor-Liquid Critical Properties of Elements and Compounds, part 10
tc	556.40	K	PSRK revision IV (2005), critical constants and acentric factors of 1000 components
tc	556.30	K	ChemSep v8.3 pure component data
tf	251.35 ± 0.50	K	NIST Webbook; Vanderwerf, Davidson, et al., 1948
tf	250.30 ± 0.15	K	NIST Webbook; Timmermans, 1929
tf	250.19 ± 0.20	K	NIST Webbook; Timmermans, 1909
tf	248.45 ± 0.20	K	NIST Webbook; Beckmann and Waentig, 1910
tf	250.20 ± 0.20	K	NIST Webbook; Timmermans, 1911
tf	250.10 ± 0.50	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.01 ± 0.40	K	NIST Webbook; McCullough and Phipps, 1928
tf	249.92 ± 0.40	K	NIST Webbook; McCullough and Phipps, 1928

tf	250.26 ± 0.05	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.17 ± 0.01	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.18 ± 0.02	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.18 ± 0.05	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.18 ± 0.02	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.20 ± 0.02	K	NIST Webbook; McCullough and Phipps, 1928
tf	250.28 ± 0.02	K	NIST Webbook; Skau and Meier, 1929
tf	250.31 ± 0.02	K	NIST Webbook; Skau and Meier, 1929
tf	250.28 ± 0.05	K	NIST Webbook; Johnston and Long, 1934
tf	250.00 ± 1.50	K	NIST Webbook; Timmermans, 1935
tf	250.00 ± 1.50	K	NIST Webbook; Van de Vloed, 1939
tf	250.50 ± 0.30	K	NIST Webbook; Turkevich and Smyth, 1940
tf	250.15	K	Jean-Claude Bradley Open Melting Point Dataset (2014, CC0)
tf	250.33	K	ChemSep v8.3 pure component data
tf	250.00	K	KDB
tf	250.16	K	Aqueous Solubility Prediction Method
tf	250.15	K	NCMS SOLV-DB
tf	250.39 ± 0.01	K	NIST Webbook; Ott, Woodfield, et al., 1987
tf	240.39 ± 0.10	K	NIST Webbook; Guanquan, Ott, et al., 1986
tf	250.38 ± 0.08	K	NIST Webbook; Guanquan, Ott, et al., 1986, 2
tf	250.42 ± 0.05	K	NIST Webbook; Boerio-Goates, Goates, et al., 1985
tf	250.55 ± 0.15	K	NIST Webbook; Ott and Goates, 1983
tf	245.00 ± 1.00	K	NIST Webbook; Silver and Rudman, 1970

tf	247.80 ± 1.00	K	NIST Webbook; Silver and Rudman, 1970
tf	250.42 ± 0.04	K	NIST Webbook; Stokes, Marsh, et al., 1969
tf	245.40 ± 1.00	K	NIST Webbook; Gray, 1967
tf	250.30 ± 0.50	K	NIST Webbook; Gray, 1967
tf	250.41 ± 0.05	K	NIST Webbook; Ott, Goates, et al., 1964
tf	250.30 ± 0.20	K	NIST Webbook; Rastogi and Nigam, 1959
tf	250.36 ± 0.06	K	NIST Webbook; Dunlop, 1955
tf	250.40 ± 0.04	K	NIST Webbook; Dunlop, 1955
tf	250.25 ± 0.20	K	NIST Webbook; Neff and Hickman, 1955
tf	250.16 ± 0.05	K	NIST Webbook; Dreisbach and Martin, 1949
tf	250.45 ± 0.20	K	NIST Webbook; Kennard and McCusker, 1948
tt	245.20	K	Solid binary mixtures of neopentanol with tert-Butyl chloride and carbon tetrachloride studied by thermal, X-ray and dielectric techniques
tt	250.37 ± 0.20	K	NIST Webbook; Stull, 1937
tt	250.40	K	Solid binary mixtures of neopentanol with tert-Butyl chloride and carbon tetrachloride studied by thermal, X-ray and dielectric techniques
tt	250.53	K	Staveley, Lobo and Calado (1981), triple points
tt	250.33	K	ChemSep v8.3 pure component data
tt	245.70 ± 0.02	K	NIST Webbook; Arentsen and van Miltenburg, 1972
tt	249.00 ± 1.00	K	NIST Webbook; Latimer, 1922
tt	250.25 ± 0.10	K	NIST Webbook; Altunin, Geller, et al., 1987
tt	250.28 ± 0.02	K	NIST Webbook; Arentsen and van Miltenburg, 1972
tt	250.30 ± 0.15	K	NIST Webbook; Hicks, Hooley, et al., 1944
tt	226.10	K	Solid binary mixtures of neopentanol with tert-Butyl chloride and carbon tetrachloride studied by thermal, X-ray and dielectric techniques

tt	250.20 ± 0.20	K	NIST Webbook; Staveley and Gupta, 1949
uqi	2.82		ChemSep v8.3 pure component data
uri	3.33		ChemSep v8.3 pure component data
vc	0.276	m3/kmol	KDB
vc	0.276	m3/kmol	ChemSep v8.3 pure component data
vc	0.276	m3/kmol	PSRK revision IV (2005), critical constants and acentric factors of 1000 components
vc	0.276	m3/kmol	IUPAC Vapor-Liquid Critical Properties of Elements and Compounds, part 10
volm	9.71e-05	m3/mol	Activity coefficients in binary mixtures formed by cyclohexanone with a variety of compounds at 94.7 kPa
zc	0.2710000		ChemSep v8.3 pure component data
zc	0.2693290		KDB
zc	0.2710000		IUPAC Vapor-Liquid Critical Properties of Elements and Compounds, part 10
zra	0.27		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpl	130.50	J/mol×K	303.30	NIST Webbook; Harrison and Moelwyn-Hughes, 1957

cpl	132.90	J/mol×K	330.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	128.80	J/mol×K	298.00	NIST Webbook; Kurbatov, 1948
cpl	132.59	J/mol×K	298.00	NIST Webbook; Staveley, Tupman, et al., 1955
cpl	130.90	J/mol×K	300.00	NIST Webbook; Harrison and Moelwyn-Hughes, 1957
cpl	131.50	J/mol×K	293.00	NIST Webbook; Rastorguev and Ganiev, 1967
cpl	131.00	J/mol×K	298.00	NIST Webbook; Deshpande and Bhatagadde, 1971
cpl	131.80	J/mol×K	256.10	NIST Webbook; Arentsen and Van Miltenburg, 1972
cpl	130.80	J/mol×K	298.15	NIST Webbook; Subrahmanyam and Rajagopal, 1973
cpl	131.66	J/mol×K	293.15	NIST Webbook; Wilhelm, Zettler, et al., 1974
cpl	131.90	J/mol×K	298.15	NIST Webbook; Grolier, Benson, et al., 1975
cpl	131.40	J/mol×K	298.15	NIST Webbook; Fortier and Benson, 1976
cpl	131.36	J/mol×K	298.15	NIST Webbook; Fortier, Benson, et al., 1976
cpl	131.40	J/mol×K	298.15	NIST Webbook; Vesely, Svoboda, et al., 1977

cpl	131.57	J/mol×K	298.15	NIST Webbook; Grolier, Wilhelm, et al., 1978
cpl	131.36	J/mol×K	298.15	NIST Webbook; Wilhelm, Faradjzadeh, et al., 1979
cpl	131.40	J/mol×K	298.15	NIST Webbook; Vesely, Zabransky, et al., 1979
cpl	131.60	J/mol×K	298.15	NIST Webbook; Grolier, Hamedi, et al., 1979
cpl	129.80	J/mol×K	293.15	NIST Webbook; Atalla, El-Sharkawy, et al., 1981
cpl	131.34	J/mol×K	298.15	NIST Webbook; Tanaka, 1982
cpl	131.67	J/mol×K	298.15	NIST Webbook; Hicks, Hooley, et al., 1944
cpl	133.00	J/mol×K	298.15	NIST Webbook; Petrov, Peshekhodov, et al., 1989
cpl	133.40	J/mol×K	340.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	133.35	J/mol×K	298.15	NIST Webbook; Lainez, Rodrigo, et al., 1989
cpl	131.30	J/mol×K	298.15	NIST Webbook; Shehatta, 1993
cpl	132.20	J/mol×K	298.10	NIST Webbook; Zhdanov, 1941
cpl	133.90	J/mol×K	290.00	NIST Webbook; Latimer, 1922
cpl	128.90	J/mol×K	303.00	NIST Webbook; Willams and Daniels, 1924

cpl	128.00	J/mol×K	293.20	NIST Webbook; Williams and Daniels, 1925
cpl	130.50	J/mol×K	298.10	NIST Webbook; Richards and Wallace, 1932
cpl	132.50	J/mol×K	320.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	132.90	J/mol×K	298.15	NIST Webbook; Nkinamubanzi, Charlet, et al., 1985
cpl	133.10	J/mol×K	301.20	NIST Webbook; Phillip, 1939
cpl	126.40	J/mol×K	288.30	NIST Webbook; de Kolossowsky and Udowenko, 1933
cpl	126.40	J/mol×K	288.30	NIST Webbook; Kolosovskii and Udovenko, 1934
cpl	133.00	J/mol×K	298.00	NIST Webbook; Vold, 1937
cpl	133.10	J/mol×K	298.00	NIST Webbook; Vold, 1937
cpl	132.63	J/mol×K	298.10	NIST Webbook; Stull, 1937

cpl	130.40	J/mol×K	260.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	130.60	J/mol×K	270.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	130.70	J/mol×K	273.15	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD

cpl	130.90	J/mol×K	280.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	131.30	J/mol×K	290.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD
cpl	131.60	J/mol×K	298.15	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD

cpl	131.60	J/mol×K	300.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD	
cpl	132.00	J/mol×K	310.00	Zabransky, M., Ruzicka, V., Majer, V. and Domalski, E. (1997), Heat Capacity of Liquids: Critical Review and Recommended Values - Monograph No. 6, J. Phys. & Chem. Ref. Data (JPCRD), National Institute of Standards and Technology, Gaithersburg, MD	
cps	44.22	J/mol×K	46.00	NIST Webbook; Atake and Chihara, 1971	
dvisc	0.0261300	Pa×s	298.15	NCMS SOLV-DB	
dvisc	0.0008689	Pa×s	303.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	
dvisc	0.0008307	Pa×s	308.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	

dvisc	0.0007600	Pa×s	313.15	Studies of viscosities of dilute solutions of alkylamine in non-electrolyte solvents. II. Haloalkanes and other polar solvents
dvisc	0.0008520	Pa×s	303.15	Studies of viscosities of dilute solutions of alkylamine in non-electrolyte solvents. II. Haloalkanes and other polar solvents
dvisc	0.0008070	Pa×s	313.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K
dvisc	0.0008072	Pa×s	313.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K
hfust	2.56	kJ/mol	250.50	NIST Webbook
hfust	2.69	kJ/mol	249.00	NIST Webbook; Domalski and Hearing, 1996
hfust	4.60	kJ/mol	224.60	NIST Webbook; Domalski and Hearing, 1996
hfust	2.69	kJ/mol	249.00	NIST Webbook
hfust	4.58	kJ/mol	225.40	NIST Webbook
hfust	2.52	kJ/mol	250.30	NIST Webbook
hfust	4.63	kJ/mol	225.70	NIST Webbook
hsubt	43.30	kJ/mol	226.00	NIST Webbook; Bondi, 1963
hsubt	38.80	kJ/mol	217.00	NIST Webbook; Jones, 1960
hsubt	37.90	kJ/mol	237.50	NIST Webbook; Goto, Fujinawa, et al., 1996
hvapt	31.70	kJ/mol	325.50	NIST Webbook; Barker, Brown, et al., 1953

hvapt	32.30	kJ/mol	322.00	NIST Webbook; Hildenbrand and McDonald, 1959
hvapt	33.70	kJ/mol	305.50	NIST Webbook; Stephenson and Malanowski, 1987
hvapt	30.60	kJ/mol	524.50	NIST Webbook; Stephenson and Malanowski, 1987
hvapt	29.20	kJ/mol	454.50	NIST Webbook; Stephenson and Malanowski, 1987
hvapt	30.40	kJ/mol	382.50	NIST Webbook; Stephenson and Malanowski, 1987
hvapt	29.82	kJ/mol	349.90	NIST Webbook; Majer and Svoboda, 1985
hvapt	30.00	kJ/mol	349.80	KDB
pvap	40.00	kPa	322.04	Determination and correlation of vapor liquid equilibrium for binary systems consisting of close-boiling components
pvap	23.36	kPa	308.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	15.33	kPa	298.15	NCMS SOLV-DB
pvap	7.51	kPa	283.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures

pvap	9.60	kPa	288.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	12.14	kPa	293.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	15.22	kPa	298.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	18.98	kPa	303.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	18.83	kPa	303.15	Total Vapor Pressure Measurements for 2-Ethoxyethanol with Carbon Tetrachloride, Chloroform, and Dichloromethane at 303.15 K

pvap	93.32	kPa	347.09	Determination and correlation of vapor liquid equilibrium for binary systems consisting of close-boiling components
pvap	79.99	kPa	342.21	Determination and correlation of vapor liquid equilibrium for binary systems consisting of close-boiling components
pvap	66.66	kPa	336.65	Determination and correlation of vapor liquid equilibrium for binary systems consisting of close-boiling components
pvap	53.33	kPa	330.08	Determination and correlation of vapor liquid equilibrium for binary systems consisting of close-boiling components
pvap	94.70	kPa	347.85	Activity coefficients in binary mixtures formed by cyclohexanone with a variety of compounds at 94.7 kPa
pvap	34.59	kPa	318.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
pvap	28.53	kPa	313.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures

pvap	41.68	kPa	323.15	Total vapour pressure and excess Gibbs energy for binary mixtures of 1,1,2,2-tetrachloroethane or tetrachloroethene with tetrachloromethane at nine temperatures
rfi	1.45700		298.15	NCMS SOLV-DB
rfi	1.45980		298.10	Excess Enthalpies and Thermal Conductivity Coefficients for Binary Mixtures of Carbon Tetrachloride and Four Alkanes (C5 to C8) at a Temperature of 298.15 K
rfi	1.45715		298.15	Enthalpies of Vaporization and Sublimation of the Halogen-Substituted Aromatic Hydrocarbons at 298.15 K: Application of Solution Calorimetry Approach
rfi	1.45550		303.15	Densities, speeds of sound, isentropic compressibilities, refractive indexes, and viscosities of tetrahydrofuran with haloalkane or alkyl ethanoate at T = 303.15 K
rfi	1.45740		298.15	Activity coefficients in binary mixtures formed by cyclohexanone with a variety of compounds at 94.7 kPa

rhol	1575.00	kg/m3	303.15	Viscosity and Density for Binary Mixtures of Carbon Tetrachloride + Chloroform, Carbon Tetrachloride + Dichloromethane, and Chloroform + Dichloromethane and One Ternary Mixture of Chloroform + 1:1 (Carbon Tetrachloride + Dichloromethane) at 303.15 K
rhol	1584.35	kg/m3	298.15	Sound speed and density measurements for tetra-n-butylammonium bromide in benzene and carbon tetrachloride solutions at T = 298.15 K
rhol	1564.83	kg/m3	308.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
rhol	1554.96	kg/m3	313.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
rhol	1574.82	kg/m3	303.15	Speeds of sound, isentropic compressibilities, viscosities, and excess molar volumes of binary mixtures of alkanoates with tetra- and trichloromethanes at 303.15 K
rhol	1574.82	kg/m3	303.15	Densities, speeds of sound, isentropic compressibilities, refractive indexes, and viscosities of tetrahydrofuran with haloalkane or alkyl ethanoate at T = 303.15 K

rhol	1574.78	kg/m3	303.15	Studies of viscosities of dilute solutions of alkylamine in non-electrolyte solvents. II. Haloalkanes and other polar solvents	
rhol	1555.02	kg/m3	313.15	Studies of viscosities of dilute solutions of alkylamine in non-electrolyte solvents. II. Haloalkanes and other polar solvents	
rhol	1584.35	kg/m3	298.15	Compressibility studies of aqueous and CCl4 solutions of 18-crown-6 at T = 298.15 K	
rhol	1580.60	kg/m3	303.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	
rhol	1575.70	kg/m3	308.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	
rhol	1570.90	kg/m3	313.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	
rhol	1571.30	kg/m3	313.15	Viscosities and Densities of Binary Mixtures of 1,4-Dioxane, Carbon Tetrachloride, and Butanol at 303.15 K, 308.15 K, and 313.15 K	

rhol	1586.10	kg/m3	298.15	Densities and Viscosities of Binary Liquid Mixtures of Trichloroethylene and Tetrachloroethylene with Some Polar and Nonpolar Solvents
rhol	1583.80	kg/m3	298.15	Excess Molar volumes and Surface Tensions of Trimethylbenzene with Tetrahydrofuran Tetrachloromethane and Dimethylsulfoxide at 298.15 K
rhol	1584.30	kg/m3	298.15	Calorimetric Study of Nitrile Group-Solvent Interactions and Comparison with Dispersive Quasi-Chemical (DISQUAC) Predictions
rhol	1584.26	kg/m3	298.15	Enthalpies of Vaporization and Sublimation of the Halogen-Substituted Aromatic Hydrocarbons at 298.15 K: Application of Solution Calorimetry Approach
rhol	1584.80	kg/m3	298.10	Excess Enthalpies and Thermal Conductivity Coefficients for Binary Mixtures of Carbon Tetrachloride and Four Alkanes (C5 to C8) at a Temperature of 298.15 K
rhol	1584.30	kg/m3	298.15	Ion Pair and Triple Ion Formation by Some Tetraalkylammonium Iodides in Binary Mixtures of Carbon Tetrachloride + Nitrobenzene

rhol	1584.00	kg/m3	298.00	KDB
rhol	1584.36	kg/m3	298.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
rhol	1574.61	kg/m3	303.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
sfust	20.49	J/mol×K	224.60	NIST Webbook; Domalski and Hearing, 1996
sfust	10.20	J/mol×K	250.50	NIST Webbook
sfust	20.50	J/mol×K	225.70	NIST Webbook
sfust	10.10	J/mol×K	250.30	NIST Webbook
sfust	20.30	J/mol×K	225.40	NIST Webbook
sfust	10.82	J/mol×K	249.00	NIST Webbook
speedsl	921.70	m/s	298.15	Sound speed and density measurements for tetra-n-butylammonium bromide in benzene and carbon tetrachloride solutions at T = 298.15 K
speedsl	921.50	m/s	298.15	Compressibility studies of aqueous and CCl4 solutions of 18-crown-6 at T = 298.15 K
speedsl	927.00	m/s	298.00	Ultrasonic velocity, viscosity and excess properties of binary mixture of tetrahydrofuran with 1-propanol and 2-propanol
speedsl	919.50	m/s	303.00	Ultrasonic velocity, viscosity and excess properties of binary mixture of tetrahydrofuran with 1-propanol and 2-propanol

speedsl	904.00	m/s	313.00	Ultrasonic velocity, viscosity and excess properties of binary mixture of tetrahydrofuran with 1-propanol and 2-propanol
speedsl	932.00	m/s	293.00	Ultrasonic velocity, viscosity and excess properties of binary mixture of tetrahydrofuran with 1-propanol and 2-propanol
speedsl	905.00	m/s	303.15	Speeds of sound, isentropic compressibilities, viscosities, and excess molar volumes of binary mixtures of alkanoates with tetra- and trichloromethanes at 303.15 K
speedsl	905.00	m/s	303.15	Densities, speeds of sound, isentropic compressibilities, refractive indexes, and viscosities of tetrahydrofuran with haloalkane or alkyl ethanoate at T = 303.15 K
srf	0.02	N/m	298.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
srf	0.02	N/m	303.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
srf	0.03	N/m	298.15	NCMS SOLV-DB
srf	0.02	N/m	308.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures

srf	0.02	N/m	313.15	Surface and bulk behavior of (dialkylsulfoxides + carbon tetrachloride) mixtures
srf	0.03	N/m	298.20	KDB

Correlations

Information	Value
Property code	cpg
Equation	$Y = A + \exp(B/T + C + D \cdot T + E \cdot T^2)$
Y unit	J/mol×K
Coeff. A	3.75880e+01
Coeff. B	-2.42531e+02
Coeff. C	4.75950e+00
Coeff. D	-4.46049e-04
Coeff. E	1.39110e-07
Temperature range (K), min.	50.00
Temperature range (K), max.	1500.00

Information	Value
Property code	cpg
Equation	$Y = A + B \cdot t + C \cdot t^2 + D \cdot t^3 + E/t^2$, $t = T/1000$
Y unit	J/mol×K
Coeff. A	1.03113e+02
Coeff. B	4.18864e+00
Coeff. C	-1.12647e+00
Coeff. D	9.56770e-02
Coeff. E	-1.91962e+00
Reference	Chase, 1998
Comment	F=-133.3357, G=422.4334, H=-95.98096; Data last reviewed in December, 1968
Temperature range (K), min.	298.00
Temperature range (K), max.	6000.00

Information	Value
Property code	cpl
Equation	$Y = A + \exp(B/T + C + D \cdot T + E \cdot T^2)$
Y unit	J/mol×K

Coeff. A	1.29390e+02
Coeff. B	1.95920e+03
Coeff. C	-2.57408e+01
Coeff. D	8.08340e-02
Coeff. E	-4.74910e-05
Temperature range (K), min.	250.33
Temperature range (K), max.	388.71

Information	**Value**
Property code	dvisc
Equation	$Y = \exp(A + B/T + C \cdot \ln(T) + D \cdot T^E)$
Y unit	Pa×s
Coeff. A	-2.22970e+01
Coeff. B	1.64500e+03
Coeff. C	1.75880e+00
Coeff. D	-2.81630e-06
Coeff. E	2.00000e+00
Temperature range (K), min.	250.00
Temperature range (K), max.	473.00

Information	**Value**
Property code	hvapt
Equation	$Y = A \cdot (1 . Tr)^{(B + C \cdot Tr + D \cdot Tr^2 + E \cdot Tr^3)}$, $Tr = T/Tc$
Y unit	kJ/mol
Coeff. A	3.17640e+01
Coeff. B	-1.57290e+00
Coeff. C	5.21580e+00
Coeff. D	-5.52590e+00
Coeff. E	2.19310e+00
Tc (K)	5.56300e+02
Temperature range (K), min.	250.33
Temperature range (K), max.	553.15

Information	**Value**
Property code	pvap
Equation	$\ln(Y) = A + B/(T + C)$
Y unit	kPa
Coeff. A	1.41285e+01
Coeff. B	-2.94375e+03
Coeff. C	-4.02620e+01
Temperature range (K), min.	250.33

Temperature range (K), max.	556.35

Information	Value
Property code	pvap
Equation	Y = exp(A + B/T + C·ln(T) + D·T^E)
Y unit	kPa
Coeff. A	7.57632e+01
Coeff. B	-6.30420e+03
Coeff. C	-9.22470e+00
Coeff. D	7.43520e-06
Coeff. E	2.00000e+00
Comment	Range stopped at Tc; ChemSep gives it to 556.35 K.
Temperature range (K), min.	213.45
Temperature range (K), max.	556.30

Information	Value
Property code	pvap
Equation	$\ln(Y) = A + B/T + C\cdot\ln(T) + D\cdot T^2 + E/T^2$
Y unit	kPa
Coeff. A	7.49948e+01
Coeff. B	-6.26338e+03
Coeff. C	-9.11397e+00
Coeff. D	7.41145e-06
Coeff. E	0.00000e+00
Temperature range (K), min.	250.00
Temperature range (K), max.	556.35

Information	Value
Property code	pvap
Equation	ln(Y) = A + B/(T + C)
Y unit	kPa
Coeff. A	1.38683e+01
Coeff. B	-2.81325e+03
Coeff. C	-4.57390e+01
Reference	Hildenbrand and McDonald, 1959, 2
Comment	Coefficents calculated by NIST from author's data.
Temperature range (K), min.	293.03
Temperature range (K), max.	350.86

Information	Value

Property code	pvap
Equation	ln(Y) = A + B/(T + C)
Y unit	kPa
Coeff. A	1.38683e+01
Coeff. B	-2.81325e+03
Coeff. C	-4.57390e+01
Reference	Hildenbrand and McDonald, 1959
Comment	Coefficents calculated by NIST from author's data.
Temperature range (K), min.	293.03
Temperature range (K), max.	350.86

Information	Value
Property code	rhol
Equation	Y = A / B^(1 + (1 . T/C)^D)
Y unit	kg/m3
Coeff. A	1.64913e+02
Coeff. B	2.83280e-01
Coeff. C	5.56300e+02
Coeff. D	3.00920e-01
Temperature range (K), min.	250.33
Temperature range (K), max.	554.70

Information	Value
Property code	srf
Equation	$Y = A + B \cdot T + C \cdot T^2 + D \cdot T^3 + E \cdot T.$
Y unit	N/m
Coeff. A	6.29236e-02
Coeff. B	-1.22400e-04
Coeff. C	0.00000e+00
Coeff. D	0.00000e+00
Coeff. E	0.00000e+00
Temperature range (K), min.	250.15
Temperature range (K), max.	349.85

Information	Value
Property code	srf
Equation	$Y = A + \exp(B/T + C + D \cdot T + E \cdot T^2)$
Y unit	N/m
Coeff. A	-1.00750e-02
Coeff. B	1.36760e+02
Coeff. C	-4.06870e+00

Coeff. D	3.80540e-03
Coeff. E	-9.43870e-06
Temperature range (K), min.	250.33
Temperature range (K), max.	540.24

Information	Value
Property code	tcondg
Equation	$Y = A \cdot T^B / (1 + C/T + D/T^2)$
Y unit	W/m×K
Coeff. A	1.20800e-04
Coeff. B	9.85410e-01
Coeff. C	1.41110e+03
Coeff. D	-3.65840e+04
Temperature range (K), min.	250.33
Temperature range (K), max.	1000.00

Information	Value
Property code	tcondl
Equation	$Y = A + \exp(B/T + C + D \cdot T + E \cdot T^2)$
Y unit	W/m×K
Coeff. A	3.44320e-02
Coeff. B	-2.27950e+02
Coeff. C	-3.81170e-01
Coeff. D	-4.83710e-03
Coeff. E	-1.17820e-06
Temperature range (K), min.	250.33
Temperature range (K), max.	428.15

Datasets

Speed of sound, m/s

Temperature, K - Liquid	Pressure, kPa - Liquid	Speed of sound, m/s - Liquid
283.15	101.00	969.1
283.15	497.00	970.5
283.15	1065.00	972.7
283.15	2192.00	976.9

283.15	2306.00	977.4
283.15	3433.00	981.6
283.15	5102.00	987.7
283.15	5958.00	990.8
283.15	7972.00	998.0
283.15	8771.00	1000.6
283.15	9833.00	1004.6
283.15	11260.00	1009.5
283.15	12970.00	1015.5
283.15	13650.00	1017.6
283.15	16043.00	1026.0
283.15	19058.00	1035.9
283.15	22343.00	1046.6
283.15	25816.00	1057.5
283.15	30453.00	1071.7
298.15	101.00	921.1
298.15	583.00	923.1
298.15	865.00	924.2
298.15	887.00	924.4
298.15	1384.00	926.4
298.15	1731.00	927.8
298.15	1900.00	928.4
298.15	2056.00	929.1
298.15	2905.00	932.5
298.15	3020.00	933.0
298.15	3919.00	936.6
298.15	4367.00	938.4
298.15	4908.00	940.5
298.15	5436.00	942.6
298.15	5946.00	944.5
298.15	6868.00	948.0
298.15	7358.00	949.9
298.15	7761.00	951.5
298.15	8818.00	955.5
298.15	8930.00	955.9
298.15	9903.00	959.6
298.15	10321.00	961.2
298.15	11239.00	964.6
298.15	12541.00	969.3
298.15	13397.00	972.5
298.15	14945.00	978.0
298.15	15313.00	979.4
298.15	17404.00	986.8
298.15	17674.00	987.8

298.15	20253.00	996.7
298.15	20404.00	997.2
298.15	22533.00	1004.5
298.15	24855.00	1012.3
298.15	24984.00	1012.8
298.15	25186.00	1013.4
298.15	27693.00	1021.7
298.15	29953.00	1029.0
298.15	30569.00	1030.8
298.15	101.00	921.1
313.15	101.00	874.2
313.15	108.00	874.2
313.15	478.00	875.9
313.15	894.00	877.7
313.15	1827.00	881.9
313.15	2938.00	886.7
313.15	4119.00	891.6
313.15	5135.00	896.1
313.15	5591.00	898.0
313.15	6975.00	903.6
313.15	8334.00	909.4
313.15	10049.00	916.2
313.15	12992.00	927.9
313.15	14421.00	933.4
313.15	16421.00	941.1
313.15	18812.00	949.9
313.15	20514.00	956.3
313.15	25209.00	972.9
313.15	31645.00	994.8
333.15	101.00	813.0
333.15	967.00	817.4
333.15	1691.00	820.9
333.15	2195.00	823.4
333.15	3177.00	828.1
333.15	5118.00	837.4
333.15	5595.00	839.5
333.15	7312.00	847.3
333.15	8236.00	851.5
333.15	9201.00	855.8
333.15	10593.00	862.0
333.15	11851.00	867.4
333.15	13131.00	872.9
333.15	14740.00	879.6
333.15	15989.00	884.8

333.15	17758.00	892.1
333.15	19476.00	898.9
333.15	20905.00	904.6
333.15	22422.00	910.5
333.15	25433.00	922.0
333.15	27880.00	931.1
333.15	31372.00	943.7

Reference *https://www.doi.org/10.1016/j.jct.2004.04.013*

Viscosity, Pa*s

Temperature, K - Liquid	Pressure, kPa - Liquid	Viscosity, Pa*s - Liquid
303.15	101.30	0.0008440

Reference *https://www.doi.org/10.1016/j.tca.2004.07.014*

Temperature, K	Pressure, kPa	Viscosity, Pa*s
303.15	101.33	0.0008441

Reference *https://www.doi.org/10.1016/j.tca.2004.08.001*

Temperature, K	Pressure, kPa	Viscosity, Pa*s
303.15	101.33	0.0008403

Reference *https://www.doi.org/10.1021/je020067x*

Isobaric coefficient of expansion, 1/K

Pressure, kPa - Liquid	Temperature, K - Liquid	Isobaric coefficient of expansion, 1/K - Liquid
5000.00	278.15	0.0011
5000.00	288.15	0.0012
5000.00	298.15	0.0012
5000.00	308.15	0.0012
5000.00	318.15	0.0012
5000.00	328.15	0.0013

5000.00	338.15	0.0013
5000.00	348.15	0.0013
10000.00	278.15	0.0011
10000.00	288.15	0.0011
10000.00	298.15	0.0012
10000.00	308.15	0.0012
10000.00	318.15	0.0012
10000.00	328.15	0.0012
10000.00	338.15	0.0012
10000.00	348.15	0.0013
15000.00	278.15	0.0011
15000.00	288.15	0.0011
15000.00	298.15	0.0011
15000.00	308.15	0.0011
15000.00	318.15	0.0012
15000.00	328.15	0.0012
15000.00	338.15	0.0012
15000.00	348.15	0.0012
20000.00	278.15	0.0011
20000.00	288.15	0.0011
20000.00	298.15	0.0011
20000.00	308.15	0.0011
20000.00	318.15	0.0011
20000.00	328.15	0.0011
20000.00	338.15	0.0011
20000.00	348.15	0.0012
25000.00	278.15	0.0010
25000.00	288.15	0.0011
25000.00	298.15	0.0011
25000.00	308.15	0.0011
25000.00	318.15	0.0011
25000.00	328.15	0.0011
25000.00	338.15	0.0011
25000.00	348.15	0.0011
30000.00	278.15	0.0010
30000.00	288.15	0.0010
30000.00	298.15	0.0010
30000.00	308.15	0.0011
30000.00	318.15	0.0011
30000.00	328.15	0.0011
30000.00	338.15	0.0011
30000.00	348.15	0.0011
35000.00	278.15	0.0010
35000.00	288.15	0.0010

35000.00	298.15	0.0010
35000.00	308.15	0.0010
35000.00	318.15	0.0010
35000.00	328.15	0.0010
35000.00	338.15	0.0010
35000.00	348.15	0.0011
40000.00	278.15	0.0010
40000.00	288.15	0.0010
40000.00	298.15	0.0010
40000.00	308.15	0.0010
40000.00	318.15	0.0010
40000.00	328.15	0.0010
40000.00	338.15	0.0010
40000.00	348.15	0.0010
45000.00	278.15	0.0010
45000.00	288.15	0.0010
45000.00	298.15	0.0010
45000.00	308.15	0.0010
45000.00	318.15	0.0010
45000.00	328.15	0.0010
45000.00	338.15	0.0010
45000.00	348.15	0.0010
50000.00	278.15	0.0009
50000.00	288.15	0.0009
50000.00	298.15	0.0010
50000.00	308.15	0.0010
50000.00	318.15	0.0010
50000.00	328.15	0.0010
50000.00	338.15	0.0010
50000.00	348.15	0.0010
55000.00	278.15	0.0009
55000.00	288.15	0.0009
55000.00	298.15	0.0009
55000.00	308.15	0.0009
55000.00	318.15	0.0009
55000.00	328.15	0.0009
55000.00	338.15	0.0009
55000.00	348.15	0.0009

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Molecular Interactions in Binary Mixtures of Chloroform + Carbon Tetrachloride + Cyclohexane at 298.15 K	https://doi.org/10.1016/0011-2275(81)90264-2
Predicted Retention Indices of Multiple Gas-liquid chromatography: McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

af:	Acentric Factor
alphap:	Isobaric thermal expansion coefficient
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
cps:	Solid phase heat capacity
dm:	Dipole Moment
dvisc:	Dynamic viscosity
ea:	Electron affinity
epr:	Dielectric Constant (Relative permittivity)
gf:	Standard Gibbs free energy of formation
gyrad:	Radius of Gyration
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hfust:	Enthalpy of fusion at a given temperature
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
nfpah:	NFPA Health Rating
pc:	Critical Pressure
pt:	Triple Point Pressure
pvap:	Vapor pressure
rfi:	Refractive Index
rhoc:	Critical density
rhol:	Liquid Density
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
sfust:	Entropy of fusion at a given temperature

sl:	Liquid phase molar entropy at standard conditions
speedsl:	Speed of sound in fluid
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondg:	Gas thermal conductivity
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
uqi:	UNIQUAC Qi Parameter
uri:	UNIQUAC Ri Parameter
vc:	Critical Volume
volm:	Molar Volume
zc:	Critical Compressibility
zra:	Rackett Parameter

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