

Nonadecane

Other names:	n-Nonadecane
Inchi:	InChI=1S/C19H40/c1-3-5-7-9-11-13-15-17-19-18-16-14-12-10-8-6-4-2/h3-19H2,1-2H3
InchiKey:	LQERIDTXQFOHKA-UHFFFAOYSA-N
Formula:	C19H40
SMILES:	CCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]:	268.52
CAS:	629-92-5

Physical Properties

Property code	Value	Unit	Source
af	0.8270		KDB
chl	-12662.60 ± 2.60	kJ/mol	NIST Webbook
gf	109.00	kJ/mol	KDB
hf	-435.10 ± 2.90	kJ/mol	NIST Webbook
hf	-435.40	kJ/mol	KDB
hfl	-530.90 ± 2.90	kJ/mol	NIST Webbook
hfus	44.97	kJ/mol	Joback Method
hsub	143.60	kJ/mol	NIST Webbook
hvap	96.40	kJ/mol	NIST Webbook
hvap	95.80	kJ/mol	NIST Webbook
log10ws	-7.78		Crippen Method
logp	7.658		Crippen Method
mcvol	278.570	ml/mol	McGowan Method
pc	1160.00	kPa	KDB
pc	1200.00 ± 200.00	kPa	NIST Webbook
pc	1160.00 ± 40.00	kPa	NIST Webbook
tb	603.00	K	KDB
tb	602.90	K	NIST Webbook
tb	601.70 ± 1.50	K	NIST Webbook
tc	757.00	K	Critical temperatures and pressures of C40, C44, and C60 normal alkanes measured by the pulse-heating technique
tc	755.00 ± 8.00	K	NIST Webbook
tc	755.30 ± 3.00	K	NIST Webbook
tc	755.00	K	KDB
tf	304.90 ± 0.20	K	NIST Webbook

tf	304.60 ± 0.50	K	NIST Webbook
tf	304.35 ± 0.50	K	NIST Webbook
tf	305.00 ± 4.00	K	NIST Webbook
tf	305.00 ± 3.00	K	NIST Webbook
tf	305.20	K	KDB
tf	305.20 ± 0.30	K	NIST Webbook
tf	303.95 ± 0.10	K	NIST Webbook
tf	305.80 ± 0.50	K	NIST Webbook
tf	300.30 ± 3.00	K	NIST Webbook
tf	304.00 ± 0.10	K	NIST Webbook
tt	295.50	K	Solubilities of Some Long-Chain n-Alkanes in Dipropyl Ether, Dibutyl Ether, 1-Chlorobutane, and 1-Chlorooctane as Functions of Temperature
vc	1.130	m ³ /kmol	KDB
zc	0.2088110		KDB
zra	0.22		KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	781.39	J/mol×K	634.12	Joback Method
cpg	801.89	J/mol×K	660.69	Joback Method
cpg	821.56	J/mol×K	687.26	Joback Method
cpg	840.44	J/mol×K	713.82	Joback Method
cpg	858.54	J/mol×K	740.39	Joback Method
cpg	875.88	J/mol×K	766.96	Joback Method
cpg	892.50	J/mol×K	793.53	Joback Method
cpl	602.60	J/mol×K	313.15	NIST Webbook
cpl	640.00	J/mol×K	353.00	NIST Webbook
dvisc	0.0040004	Paxs	303.89	Joback Method
dvisc	0.0013868	Paxs	358.93	Joback Method
dvisc	0.0006372	Paxs	413.97	Joback Method
dvisc	0.0003514	Paxs	469.00	Joback Method
dvisc	0.0002196	Paxs	524.04	Joback Method
dvisc	0.0001095	Paxs	634.12	Joback Method
dvisc	0.0001501	Paxs	579.08	Joback Method
hfust	13.67	kJ/mol	296.00	NIST Webbook
hfust	47.40	kJ/mol	304.00	NIST Webbook
hfust	42.70	kJ/mol	304.40	NIST Webbook
hfust	47.40	kJ/mol	305.30	NIST Webbook

hsubt	136.60	kJ/mol	295.50	NIST Webbook
hvapt	73.00	kJ/mol	531.00	NIST Webbook
hvapt	76.20	kJ/mol	505.50	NIST Webbook
hvapt	56.02	kJ/mol	603.20	KDB
rhoI	789.00	kg/m ³	305.00	KDB
sfust	155.90	J/mol×K	304.00	NIST Webbook
sfust	46.20	J/mol×K	296.00	NIST Webbook
srf	0.03	N/m	323.20	KDB
vols	0.00	m ³ /kg	426.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C ₁₆ H ₃₄ , C ₁₈ H ₃₈ , C ₁₉ H ₄₀ and C ₂₁ H ₄₄) under saturating vapour pressure in the 298-573K range
vols	0.00	m ³ /kg	321.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C ₁₆ H ₃₄ , C ₁₈ H ₃₈ , C ₁₉ H ₄₀ and C ₂₁ H ₄₄) under saturating vapour pressure in the 298-573K range
vols	0.00	m ³ /kg	323.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C ₁₆ H ₃₄ , C ₁₈ H ₃₈ , C ₁₉ H ₄₀ and C ₂₁ H ₄₄) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	326.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	328.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	330.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	332.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	334.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	336.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	338.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	340.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	342.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	344.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	346.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	348.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	350.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	352.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	354.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	356.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	358.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	361.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	363.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	365.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	367.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	369.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	371.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	373.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	375.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	377.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	379.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	381.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	383.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	385.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	387.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	389.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	391.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	393.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	396.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	398.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	400.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	402.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	404.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	406.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	408.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	410.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	412.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	414.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	416.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	418.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	420.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	422.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	424.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	319.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	429.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	431.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	433.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	435.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	437.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	439.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	441.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	443.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	445.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	447.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	449.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	451.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	453.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	455.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	457.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	459.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	461.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	464.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	466.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	468.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	470.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	472.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	474.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	476.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	478.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	480.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	482.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	484.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	486.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	488.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	490.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	492.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	494.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	496.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	499.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	501.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	503.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	505.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	507.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	509.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	511.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	513.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	515.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	517.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	519.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	521.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	523.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	525.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	531.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	533.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	535.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	537.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	539.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	541.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	543.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	544.95	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	546.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	548.85	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	317.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	552.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	554.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	556.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	558.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	560.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	562.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	564.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	566.35	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	568.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	570.25	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	572.15	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	574.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	576.05	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	315.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	313.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m3/kg	311.65	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	309.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	307.55	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/kg	305.45	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range

vols	0.00	m ³ /kg	550.75	A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C ₁₆ H ₃₄ , C ₁₈ H ₃₈ , C ₁₉ H ₄₀ and C ₂₁ H ₄₄) under saturating vapour pressure in the 298-573K range
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Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.47703e+01
Coeff. B	-5.00471e+03
Coeff. C	-1.09923e+02
Temperature range (K), min.	455.49
Temperature range (K), max.	639.03

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/T + C \cdot \ln(T) + D \cdot T^2$
Coeff. A	1.75641e+02
Coeff. B	-1.78211e+04
Coeff. C	-2.25095e+01
Coeff. D	7.24611e-06
Temperature range (K), min.	305.33
Temperature range (K), max.	755.93

Sources

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McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
KDB Vapor Pressure Data:	https://www.thermofluid.com/research/kdb/hcprop/showprop.php?cmpid=19
Crippen Method:	https://www.chemed.com/doc/models/crippen_log10ws
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
A simple method to determine the specific volumes of liquids and melts for a wide range of temperatures and pressures of Carbon Dioxide (CO₂) and Nitrogen (N₂) under saturating vapour pressure in the 200-300 K temperatures and pressures of C₂₀, C₂₄, and C₆₀ normal alkanes	https://www.doi.org/10.1016/j.tca.2006.04.001
Solubilities of Some Long-Chain Alkanes in Dipropyl Ether, Dibutyl Ether, 1-Chlorobutane, and 1-Chlorooctane as Functions of Temperature:	https://www.doi.org/10.1021/acs.jced.7b00159
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Legend

af:	Acentric Factor
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
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
hsub:	Enthalpy of sublimation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rho:	Liquid Density
sfust:	Entropy of fusion at a given temperature
srf:	Surface Tension
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
tt:	Triple Point Temperature
vc:	Critical Volume
vols:	Specific Volume

zc: Critical Compressibility

zra: Rackett Parameter

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