## **Nonadecane**

Other names: n-Nonadecane

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: CCCCCCCCCCCCCCCC

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	-435.40	kJ/mol	KDB
hf	-435.10 ± 2.90	kJ/mol	NIST Webbook
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
рс	1200.00 ± 200.00	kPa	NIST Webbook
рс	1160.00	kPa	KDB
рс	1160.00 ± 40.00	kPa	NIST Webbook
tb	601.70 ± 1.50	K	NIST Webbook
tb	602.90	K	NIST Webbook
tb	603.00	K	KDB
tc	755.00	K	KDB
tc	755.30 ± 3.00	K	NIST Webbook
tc	755.00 ± 8.00	K	NIST Webbook
tc	757.00	К	Critical temperatures and pressures of C40, C44, and C60 normal alkanes measured by the pulse-heating technique
tf	304.90 ± 0.20	K	NIST Webbook

tf	$305.00 \pm 3.00$	K	NIST Webbook
tf	$305.00 \pm 4.00$	K	NIST Webbook
tf	$300.30 \pm 3.00$	K	NIST Webbook
tf	$304.60 \pm 0.50$	K	NIST Webbook
tf	$305.80 \pm 0.50$	K	NIST Webbook
tf	$305.20 \pm 0.30$	K	NIST Webbook
tf	303.95 ± 0.10	K	NIST Webbook
tf	$304.00 \pm 0.10$	K	NIST Webbook
tf	$304.35 \pm 0.50$	K	NIST Webbook
tf	305.20	K	KDB
tt	295.50	К	Solubilities of Some Long-Chain n-Alkanes in Dipropyl Ether, Dibutyl Ether, 1-Chlorobutane, and 1-Chlorooctane as Functions of Temperature
VC	1.130	m3/kmol	KDB
ZC	0.2088110		KDB
zra	0.22		KDB

# **Temperature Dependent Properties**

Property code	Value	Unit	Temperature [K]	Source
cpg	875.88	J/mol×K	766.96	Joback Method
cpg	858.54	J/mol×K	740.39	Joback Method
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	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	0.0001095	Paxs	634.12	Joback Method
dvisc	0.0003514	Paxs	469.00	Joback Method
dvisc	0.0006372	Paxs	413.97	Joback Method
dvisc	0.0013868	Paxs	358.93	Joback Method
dvisc	0.0040004	Paxs	303.89	Joback Method
dvisc	0.0002196	Paxs	524.04	Joback Method
dvisc	0.0001501	Paxs	579.08	Joback Method
hfust	47.40	kJ/mol	304.00	NIST Webbook
hfust	13.67	kJ/mol	296.00	NIST Webbook
hfust	47.40	kJ/mol	305.30	NIST Webbook
hfust	42.70	kJ/mol	304.40	NIST Webbook

hsubt	136.60	kJ/mol	295.50	NIST Webbook	
hvapt	73.00	kJ/mol	531.00	NIST Webbook	
hvapt	56.02	kJ/mol	603.20	KDB	
hvapt	76.20	kJ/mol	505.50	NIST Webbook	
rhol	789.00	kg/m3	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	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	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	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 (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	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	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	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 (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	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	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	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	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	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	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	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	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	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	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	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	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	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 (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range
vols	0.00	m3/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 (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	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	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	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 208-573K range	
				298-573K range	

#### **Correlations**

Information Value

Property code	pvap
Equation	In(Pvp) = 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	$ln(Pvp) = A + B/T + C*ln(T) + D*T^2$		
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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#### Legend

af: Acentric Factor

Standard liquid enthalpy of combustion chl:

Ideal gas heat capacity cpg: Liquid phase heat capacity cpl:

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 Octanol/Water partition coefficient logp: McGowan's characteristic volume mcvol:

Critical Pressure pc: Vapor pressure pvap: Liquid Density rhol:

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** 

Critical Volume vc: Specific Volume vols:

zc: Critical Compressibility

zra: Rackett Parameter

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