Heptadecane, 9-octyl-

Other names: 9-octyl-heptadecane
Inchi: InChI=1S/C25H52/c1-4-7-10-13-16-19-22-25(23-20-17-14-11-8-5-2)24-21-18-15-12-9-6-3
InchiKey: ZLIOPNROBPMBFI-UHFFFAOYSA-N
Formula: C25H52
SMILES: CCCCCCCCC(CCCCCCCC)CCCCCCCC
Mol. weight [g/mol]: 352.68
CAS: 7225-64-1

Physical Properties

Property code	Value	Unit	Source
gf	157.18	kJ/mol	Joback Method
hf	-564.61	kJ/mol	Joback Method
hfus	56.98	kJ/mol	Joback Method
hvap	70.86	kJ/mol	Joback Method
log10ws	-10.05		Crippen Method
logp	9.854		Crippen Method
mcvol	363.110	ml/mol	McGowan Method
pc	767.34	kPa	Joback Method
tb	770.96	K	Joback Method
tc	944.71	K	Joback Method
tf	259.40 ± 1.00	K	NIST Webbook
tf	259.40 ± 2.00	K	NIST Webbook
tf	259.35	K	NIST Webbook
vc	1.429	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1151.89	J/mol×K	770.96	Joback Method
cpg	1175.34	J/mol×K	799.92	Joback Method
cpg	1197.69	J/mol×K	828.88	Joback Method
cpg	1218.99	J/mol×K	857.83	Joback Method
cpg	1239.27	J/mol×K	886.79	Joback Method
cpg	1258.59	J/mol×K	915.75	Joback Method

cpg	1276.97	J/mol×K	944.71	Joback Method
dvisc	0.0027240	Pa×s	356.51	Joback Method
dvisc	0.0007960	Pa×s	425.58	Joback Method
dvisc	0.0003280	Pa×s	494.66	Joback Method
dvisc	0.0001679	Pa×s	563.73	Joback Method
dvisc	0.0000995	Pa×s	632.81	Joback Method
dvisc	0.0000654	Pa×s	701.88	Joback Method
dvisc	0.0000463	Pa×s	770.96	Joback Method
hvapt	93.40	kJ/mol	487.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7225641&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method

Legend

cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions
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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume