7-heptacosene

Inchi: InChI=1S/C27H54/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-26-24-22-20-18-16-14-12-10-

InchiKey: DMNHSFVSMNJNLJ-FYWRMAATSA-N

Formula: C27H54

SMILES: CCCCCCC=CCCCCCCCCCCCCCCCCCC

Mol. weight [g/mol]: 378.72

Physical Properties

Property code	Value	Unit	Source
gf	256.68	kJ/mol	Joback Method
hf	-483.39	kJ/mol	Joback Method
hfus	65.89	kJ/mol	Joback Method
hvap	75.65	kJ/mol	Joback Method
log10ws	-10.98		Crippen Method
logp	10.555		Crippen Method
mcvol	386.990	ml/mol	McGowan Method
pc	708.09	kPa	Joback Method
rinpol	2681.00		NIST Webbook
rinpol	2678.86		NIST Webbook
rinpol	2681.00		NIST Webbook
rinpol	2678.86		NIST Webbook
rinpol	2676.00		NIST Webbook
tb	821.32	K	Joback Method
tc	1005.57	K	Joback Method
tf	388.97	K	Joback Method
vc	1.528	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1257.22	J/mol×K	821.32	Joback Method
cpg	1281.22	J/mol×K	852.03	Joback Method
cpg	1304.06	J/mol×K	882.74	Joback Method
cpg	1325.80	J/mol×K	913.45	Joback Method
cpg	1346.50	J/mol×K	944.16	Joback Method

cpg	1366.23	J/mol×K	974.86	Joback Method
cpg	1385.05	J/mol×K	1005.57	Joback Method
dvisc	0.0015168	Pa×s	388.97	Joback Method
dvisc	0.0004867	Pa×s	461.03	Joback Method
dvisc	0.0002123	Pa×s	533.09	Joback Method
dvisc	0.0001129	Pa×s	605.14	Joback Method
dvisc	0.0000686	Pa×s	677.20	Joback Method
dvisc	0.0000459	Pa×s	749.26	Joback Method
dvisc	0.0000330	Pa×s	821.32	Joback Method

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R282050&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume