4,8-dimethyl-octacosane

Other names: Octacosane, 4,8-dimethyl
Inchi: InChI=1S/C30H62/c1-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-26-30(4)28-2
InchiKey: CTMSPPLYUPDVBY-UHFFFAOYSA-N
Formula: C30H62
SMILES: CCCCCCCCCCCCCCCCCCCCCC(C)CCCC(C)CCC
Mol. weight [g/mol]: 422.81

Physical Properties

Property code	Value	Unit	Source
gf	196.84	kJ/mol	Joback Method
hf	-673.09	kJ/mol	Joback Method
hfus	66.41	kJ/mol	Joback Method
hvap	81.60	kJ/mol	Joback Method
log10ws	-11.90		Crippen Method
logp	11.661		Crippen Method
mcvol	433.560	ml/mol	McGowan Method
pc	600.14	kPa	Joback Method
rinpol	2890.00		NIST Webbook
rinpol	2886.00		NIST Webbook
rinpol	2895.00		NIST Webbook
rinpol	2895.00		NIST Webbook
rinpol	2890.00		NIST Webbook
tb	884.92	K	Joback Method
tc	1088.23	K	Joback Method
tf	397.86	K	Joback Method
vc	1.704	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1482.72	J/mol×K	884.92	Joback Method
cpg	1509.65	J/mol×K	918.81	Joback Method
cpg	1535.06	J/mol×K	952.69	Joback Method
cpg	1559.02	J/mol×K	986.58	Joback Method

cpg	1581.62	J/mol×K	1020.46	Joback Method
cpg	1602.94	J/mol×K	1054.35	Joback Method
cpg	1623.05	J/mol×K	1088.23	Joback Method
dvisc	0.0017248	Pa×s	397.86	Joback Method
dvisc	0.0004393	Pa×s	479.04	Joback Method
dvisc	0.0001663	Pa×s	560.21	Joback Method
dvisc	0.0000805	Pa×s	641.39	Joback Method
dvisc	0.0000459	Pa×s	722.57	Joback Method
dvisc	0.0000293	Pa×s	803.74	Joback Method
dvisc	0.0000203	Pa×s	884.92	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R195312&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
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

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