2-docosene (E)

Inchi: InChI=1S/C22H44/c1-3-5-7-9-11-13-15-17-19-21-22-20-18-16-14-12-10-8-6-4-2/h3,5H,4,
InchiKey: AJNSXSUDSSWYSK-HWKANZROSA-N
Formula: C22H44
SMILES: CC=CCCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]: 308.58

Physical Properties

Property code	Value	Unit	Source
gf	214.58	kJ/mol	Joback Method
hf	-380.19	kJ/mol	Joback Method
hfus	52.94	kJ/mol	Joback Method
hvap	64.52	kJ/mol	Joback Method
log10ws	-8.89		Crippen Method
logp	8.604		Crippen Method
mcvol	316.540	ml/mol	McGowan Method
pc	930.64	kPa	Joback Method
rinpol	2208.00		NIST Webbook
tb	706.92	K	Joback Method
tc	873.81	K	Joback Method
tf	332.62	K	Joback Method
vc	1.248	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	940.23	J/mol×K	706.92	Joback Method
cpg	961.55	J/mol×K	734.73	Joback Method
cpg	981.95	J/mol×K	762.55	Joback Method
cpg	1001.45	J/mol×K	790.36	Joback Method
cpg	1020.10	J/mol×K	818.18	Joback Method
cpg	1037.94	J/mol×K	845.99	Joback Method
cpg	1055.00	J/mol×K	873.81	Joback Method
dvisc	0.0027831	Pa×s	332.62	Joback Method
dvisc	0.0009083	Pa×s	395.00	Joback Method

dvisc	0.0004024	Pa×s	457.39	Joback Method
dvisc	0.0002167	Pa×s	519.77	Joback Method
dvisc	0.0001333	Pa×s	582.15	Joback Method
dvisc	0.0000900	Pa×s	644.54	Joback Method
dvisc	0.0000652	Pa×s	706.92	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=R205662&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

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