

10-Docosene

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/h19,21H
InchiKey:	GMOBUARQQYHPRD-XUTLUUPIISA-N
Formula:	C22H44
SMILES:	CCCCCCCCC=CCCCCCCCCCCC
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
rmpol	2160.00		NIST Webbook
tb	706.92	K	Joback Method
tc	873.81	K	Joback Method
tf	332.62	K	Joback Method
vc	1.248	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	940.23	J/molxK	706.92	Joback Method
cpg	1037.94	J/molxK	845.99	Joback Method
cpg	1020.10	J/molxK	818.18	Joback Method
cpg	1001.45	J/molxK	790.36	Joback Method
cpg	981.95	J/molxK	762.55	Joback Method
cpg	961.55	J/molxK	734.73	Joback Method
cpg	1055.00	J/molxK	873.81	Joback Method
dvisc	0.0000652	Paxs	706.92	Joback Method
dvisc	0.0000900	Paxs	644.54	Joback Method

dvisc	0.0001333	Paxs	582.15	Joback Method
dvisc	0.0002167	Paxs	519.77	Joback Method
dvisc	0.0004024	Paxs	457.39	Joback Method
dvisc	0.0009083	Paxs	395.00	Joback Method
dvisc	0.0027831	Paxs	332.62	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=R406830&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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