

Eicosane, 10-heptyl-10-octyl-

Other names:	10-n-Heptyl-10-n-octyleicosane
Inchi:	InChI=1S/C35H72/c1-5-9-13-17-20-22-26-30-34-35(31-27-23-16-12-8-4,32-28-24-19-15-
InchiKey:	FEIFRHBKEQKLTC-UHFFFAOYSA-N
Formula:	C35H72
SMILES:	CCCCCCCCCCC(CCCCCC)(CCCCCCCC)CCCCCCCC
Mol. weight [g/mol]:	492.95
CAS:	55470-98-9

Physical Properties

Property code	Value	Unit	Source
gf	246.66	kJ/mol	Joback Method
hf	-774.48	kJ/mol	Joback Method
hfus	78.99	kJ/mol	Joback Method
hvap	92.21	kJ/mol	Joback Method
log10ws	-14.23		Crippen Method
logp	13.755		Crippen Method
mcvol	504.010	ml/mol	McGowan Method
pc	481.13	kPa	Joback Method
tb	996.97	K	Joback Method
tc	1254.02	K	Joback Method
tf	200.00 ± 2.00	K	NIST Webbook
vc	1.984	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1824.10	J/mol×K	996.97	Joback Method
cpg	1856.67	J/mol×K	1039.81	Joback Method
cpg	1887.17	J/mol×K	1082.65	Joback Method
cpg	1915.82	J/mol×K	1125.49	Joback Method
cpg	1942.86	J/mol×K	1168.34	Joback Method
cpg	1968.51	J/mol×K	1211.18	Joback Method
cpg	1992.98	J/mol×K	1254.02	Joback Method
dvisc	0.0004827	Paxs	486.63	Joback Method

dvisc	0.0001489	Paxs	571.69	Joback Method
dvisc	0.0000623	Paxs	656.74	Joback Method
dvisc	0.0000318	Paxs	741.80	Joback Method
dvisc	0.0000187	Paxs	826.86	Joback Method
dvisc	0.0000121	Paxs	911.91	Joback Method
dvisc	0.0000084	Paxs	996.97	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C55470989&Units=SI

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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