

1,19-Eicosadiene

Inchi:	InChI=1S/C20H38/c1-3-5-7-9-11-13-15-17-19-20-18-16-14-12-10-8-6-4-2/h3-4H,1-2,5-20
InchiKey:	AWJFCAXSGQLCKK-UHFFFAOYSA-N
Formula:	C20H38
SMILES:	C=CCCCCCCCCCCCCCCCC=C
Mol. weight [g/mol]:	278.52
CAS:	14811-95-1

Physical Properties

Property code	Value	Unit	Source
gf	293.20	kJ/mol	Joback Method
hf	-205.27	kJ/mol	Joback Method
hfus	45.00	kJ/mol	Joback Method
hvap	58.77	kJ/mol	Joback Method
log10ws	-7.90		Crippen Method
logp	7.600		Crippen Method
mcvol	284.060	ml/mol	McGowan Method
pc	1072.17	kPa	Joback Method
rinpol	1985.00		NIST Webbook
rinpol	1985.00		NIST Webbook
tb	650.36	K	Joback Method
tc	813.50	K	Joback Method
tf	297.70 ± 2.00	K	NIST Webbook
vc	1.117	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	793.33	J/mol×K	650.36	Joback Method
cpg	885.13	J/mol×K	786.31	Joback Method
cpg	868.36	J/mol×K	759.12	Joback Method
cpg	850.82	J/mol×K	731.93	Joback Method
cpg	832.49	J/mol×K	704.74	Joback Method
cpg	813.34	J/mol×K	677.55	Joback Method
cpg	901.18	J/mol×K	813.50	Joback Method

dvisc	0.0001067	Paxs	650.36	Joback Method
dvisc	0.0001442	Paxs	593.91	Joback Method
dvisc	0.0002077	Paxs	537.45	Joback Method
dvisc	0.0003259	Paxs	481.00	Joback Method
dvisc	0.0005766	Paxs	424.55	Joback Method
dvisc	0.0012149	Paxs	368.09	Joback Method
dvisc	0.0033538	Paxs	311.64	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
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=C14811951&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
mvol:	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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