Benzene, 2-(1-decylundecyl)-1,4-dimethyl-

Other names:	11-(2,5-Dimethylphenyl)heneicosane
	11-(2,5-Xylyl)heneicosane
	Henicosane, 11-(2,5-dimethylphenyl)-
Inchi:	InChI=1S/C29H52/c1-5-7-9-11-13-15-17-19-21-28(29-25-26(3)23-24-27(29)4)22-20-18-1
InchiKey:	XDZKZNNMWLIULQ-UHFFFAOYSA-N
Formula:	C29H52
SMILES:	CCCCCCCCCCC(CCCCCCCCCC)c1cc(C)ccc1C
Mol. weight [g/mol]:	400.72
CAS:	55373-91-6

Physical Properties

Property code	Value	Unit	Source
gf	284.01	kJ/mol	Joback Method
hf	-433.58	kJ/mol	Joback Method
hfus	60.61	kJ/mol	Joback Method
hvap	83.36	kJ/mol	Joback Method
log10ws	-11.14		Crippen Method
logp	10.449		Crippen Method
mcvol	395.710	ml/mol	McGowan Method
pc	733.23	kPa	Joback Method
tb	899.12	K	Joback Method
tc	1100.78	K	Joback Method
tf	453.05	K	Joback Method
vc	1.546	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1326.61	J/mol×K	899.12	Joback Method
cpg	1349.50	J/mol×K	932.73	Joback Method
cpg	1371.07	J/mol×K	966.34	Joback Method
cpg	1391.37	J/mol×K	999.95	Joback Method
cpg	1410.48	J/mol×K	1033.56	Joback Method
cpg	1428.47	J/mol×K	1067.17	Joback Method

cpg	1445.41	J/mol×K	1100.78	Joback Method
dvisc	0.0007419	Pa×s	453.05	Joback Method
dvisc	0.0002908	Pa×s	527.39	Joback Method
dvisc	0.0001437	Pa×s	601.74	Joback Method
dvisc	0.0000829	Pa×s	676.08	Joback Method
dvisc	0.0000533	Pa×s	750.43	Joback Method
dvisc	0.0000372	Pa×s	824.77	Joback Method
dvisc	0.0000275	Pa×s	899.12	Joback Method
hvapt	100.80	kJ/mol	503.50	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C55373916&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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
hvapt: Enthalpy of vaporization at a given temperature
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume