

Benzene, (1-methylheptadecyl)-

Other names:	Octadecane, 2-phenyl-(1-methylheptadecyl)benzene
Inchi:	InChI=1S/C24H42/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-17-20-23(2)24-21-18-16-19-22-2
InchiKey:	TWACGLJYZUHSPS-UHFFFAOYSA-N
Formula:	C24H42
SMILES:	CCCCCCCCCCCCCCCC(C)c1ccccc1
Mol. weight [g/mol]:	330.59
CAS:	6583-67-1

Physical Properties

Property code	Value	Unit	Source
gf	261.17	kJ/mol	Joback Method
hf	-307.44	kJ/mol	Joback Method
hfus	48.43	kJ/mol	Joback Method
hvap	70.91	kJ/mol	Joback Method
log10ws	-8.94		Crippen Method
logp	8.662		Crippen Method
mvol	325.260	ml/mol	McGowan Method
pc	987.02	kPa	Joback Method
tb	774.76	K	Joback Method
tc	960.07	K	Joback Method
tf	371.66	K	Joback Method
vc	1.266	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1007.54	J/molxK	774.76	Joback Method
cpg	1103.57	J/molxK	929.18	Joback Method
cpg	1086.41	J/molxK	898.30	Joback Method
cpg	1068.28	J/molxK	867.41	Joback Method
cpg	1049.13	J/molxK	836.53	Joback Method
cpg	1028.90	J/molxK	805.64	Joback Method
cpg	1119.81	J/molxK	960.07	Joback Method

dvisc	0.0000540	Paxs	774.76	Joback Method
dvisc	0.0000747	Paxs	707.58	Joback Method
dvisc	0.0001105	Paxs	640.39	Joback Method
dvisc	0.0001792	Paxs	573.21	Joback Method
dvisc	0.0003305	Paxs	506.03	Joback Method
dvisc	0.0007349	Paxs	438.84	Joback Method
dvisc	0.0021815	Paxs	371.66	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6583671&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

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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