

Tetraline, 2-butyl

Inchi:	InChI=1S/C14H20/c1-2-3-6-12-9-10-13-7-4-5-8-14(13)11-12/h4-5,7-8,12H,2-3,6,9-11H2,
InchiKey:	SJHWXQCUJFXFFP-UHFFFAOYSA-N
Formula:	C14H20
SMILES:	CCCCC1CCc2ccccc2C1
Mol. weight [g/mol]:	188.31

Physical Properties

Property code	Value	Unit	Source
gf	218.43	kJ/mol	Joback Method
hf	-40.59	kJ/mol	Joback Method
hfus	21.70	kJ/mol	Joback Method
hvap	49.78	kJ/mol	Joback Method
log10ws	-4.40		Crippen Method
logp	3.982		Crippen Method
mcvol	173.500	ml/mol	McGowan Method
pc	2287.14	kPa	Joback Method
rinsol	1514.00		NIST Webbook
tb	562.39	K	Joback Method
tc	779.06	K	Joback Method
tf	300.90	K	Joback Method
vc	0.660	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	430.06	J/molxK	562.39	Joback Method
cpg	449.84	J/molxK	598.50	Joback Method
cpg	468.40	J/molxK	634.61	Joback Method
cpg	485.80	J/molxK	670.73	Joback Method
cpg	502.09	J/molxK	706.84	Joback Method
cpg	517.35	J/molxK	742.95	Joback Method
cpg	531.63	J/molxK	779.06	Joback Method
dvisc	0.0023374	Paxs	300.90	Joback Method
dvisc	0.0013484	Paxs	344.48	Joback Method

dvisc	0.0008802	Paxs	388.06	Joback Method
dvisc	0.0006262	Paxs	431.64	Joback Method
dvisc	0.0004743	Paxs	475.23	Joback Method
dvisc	0.0003763	Paxs	518.81	Joback Method
dvisc	0.0003095	Paxs	562.39	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=R578391&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
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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