Dibenzo[c,kl]xanthene

Inchi: InChI=1S/C20H12O/c1-2-8-15-13(5-1)11-12-17-16-9-3-6-14-7-4-10-18(19(14)16)21-20(1
InchiKey: DRYQYXMAHDNFSU-UHFFFAOYSA-N
Formula: C20H12O
SMILES: c1ccc2c3c(ccc2c1)-c1cccc2cccc(c12)O3
Mol. weight [g/mol]: 268.31
CAS: 216-58-0

Physical Properties

Property code	Value	Unit	Source
gf	523.66	kJ/mol	Joback Method
hf	326.65	kJ/mol	Joback Method
hfus	37.36	kJ/mol	Joback Method
hvap	74.98	kJ/mol	Joback Method
log10ws	-7.56		Crippen Method
logp	5.766		Crippen Method
mcvol	201.230	ml/mol	McGowan Method
pc	2651.56	kPa	Joback Method
rinpol	451.57		NIST Webbook
tb	798.06	K	Joback Method
tc	1065.13	K	Joback Method
tf	539.27	K	Joback Method
vc	0.778	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	551.79	J/mol×K	798.06	Joback Method
cpg	615.19	J/mol×K	1020.62	Joback Method
cpg	602.79	J/mol×K	976.11	Joback Method
cpg	590.53	J/mol×K	931.60	Joback Method
cpg	578.12	J/mol×K	887.08	Joback Method
cpg	565.30	J/mol×K	842.57	Joback Method
cpg	627.99	J/mol×K	1065.13	Joback Method
dvisc	0.0015846	Pa×s	798.06	Joback Method

dvisc	0.0017012	Pa×s	754.93	Joback Method
dvisc	0.0018423	Pa×s	711.80	Joback Method
dvisc	0.0020156	Pa×s	668.66	Joback Method
dvisc	0.0022328	Pa×s	625.53	Joback Method
dvisc	0.0025111	Pa×s	582.40	Joback Method
dvisc	0.0028777	Pa×s	539.27	Joback Method

Sources

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=C216580&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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