7H-Benzo[c]fluoren-7-one

Inchi: InChI=1S/C17H10O/c18-17-14-8-4-3-7-13(14)16-12-6-2-1-5-11(12)9-10-15(16)17/h1-10H
InchiKey: USYWCEDYVLPNHH-UHFFFAOYSA-N
Formula: C17H10O
SMILES: O=C1c2ccccc2-c2c1ccc1ccccc21
Mol. weight [g/mol]: 230.26
CAS: 6051-98-5

Physical Properties

Property code	Value	Unit	Source
gf	364.91	kJ/mol	Joback Method
hf	203.27	kJ/mol	Joback Method
hfus	24.49	kJ/mol	Joback Method
hvap	65.74	kJ/mol	Joback Method
log10ws	-6.08		Crippen Method
logp	4.051		Crippen Method
mcvol	174.120	ml/mol	McGowan Method
pc	2953.69	kPa	Joback Method
rinpol	388.55		NIST Webbook
rinpol	390.28		NIST Webbook
tb	746.33	K	Joback Method
tc	1015.64	K	Joback Method
tf	501.89	K	Joback Method
vc	0.674	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	461.25	J/mol×K	746.33	Joback Method
cpg	474.99	J/mol×K	791.21	Joback Method
cpg	487.69	J/mol×K	836.10	Joback Method
cpg	499.53	J/mol×K	880.98	Joback Method
cpg	510.68	J/mol×K	925.87	Joback Method
cpg	521.33	J/mol×K	970.75	Joback Method
cpg	531.63	J/mol×K	1015.64	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=C6051985&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
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