

C18H16

Inchi:	InChI=1S/C18H16/c1-14-7-9-16(10-8-14)18-12-11-17(13-18)15-5-3-2-4-6-15/h2-12H,13H
InchiKey:	SBTSZWISTFQAHI-UHFFFAOYSA-N
Formula:	C18H16
SMILES:	<chem>Cc1ccc(C2=CC=C(c3ccccc3)C2)cc1</chem>
Mol. weight [g/mol]:	232.32
CAS:	7144-81-2

Physical Properties

Property code	Value	Unit	Source
gf	400.79	kJ/mol	Joback Method
hf	220.18	kJ/mol	Joback Method
hfus	24.60	kJ/mol	Joback Method
hvap	63.35	kJ/mol	Joback Method
log10ws	-5.56		Crippen Method
logp	4.866		Crippen Method
mcvol	197.500	ml/mol	McGowan Method
pc	2393.53	kPa	Joback Method
tb	697.81	K	Joback Method
tc	957.51	K	Joback Method
tf	399.68	K	Joback Method
vc	0.742	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	516.72	J/molxK	697.81	Joback Method
cpg	534.85	J/molxK	741.09	Joback Method
cpg	551.46	J/molxK	784.38	Joback Method
cpg	566.67	J/molxK	827.66	Joback Method
cpg	580.61	J/molxK	870.94	Joback Method
cpg	593.40	J/molxK	914.23	Joback Method
cpg	605.16	J/molxK	957.51	Joback Method
dvisc	0.0012120	Paxs	399.68	Joback Method
dvisc	0.0007194	Paxs	449.37	Joback Method

dvisc	0.0004738	Paxs	499.06	Joback Method
dvisc	0.0003365	Paxs	548.75	Joback Method
dvisc	0.0002530	Paxs	598.43	Joback Method
dvisc	0.0001987	Paxs	648.12	Joback Method
dvisc	0.0001615	Paxs	697.81	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=C7144812&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:

<https://www.chemeo.com/cid/69-903-3/C18H16.pdf>

Generated by Cheméo on 2024-04-26 02:49:31.045576163 +0000 UTC m=+16389019.966153479.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.