

Glutaric acid, di(cyclopentyl) ester

Inchi: InChI=1S/C15H24O4/c16-14(18-12-6-1-2-7-12)10-5-11-15(17)19-13-8-3-4-9-13/h12-13H
InchiKey: XAPGDAKLXVRJDP-UHFFFAOYSA-N
Formula: C15H24O4
SMILES: O=C(CCCC(=O)OC1CCCC1)OC1CCCC1
Mol. weight [g/mol]: 268.35

Physical Properties

Property code	Value	Unit	Source
gf	-319.32	kJ/mol	Joback Method
hf	-721.57	kJ/mol	Joback Method
hfus	28.05	kJ/mol	Joback Method
hvap	67.81	kJ/mol	Joback Method
log10ws	-3.84		Crippen Method
logp	3.128		Crippen Method
mvol	215.370	ml/mol	McGowan Method
pc	2054.89	kPa	Joback Method
rinpol	1968.00		NIST Webbook
rinpol	1968.00		NIST Webbook
tb	725.74	K	Joback Method
tc	940.14	K	Joback Method
tf	424.93	K	Joback Method
vc	0.805	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	660.24	J/molxK	725.74	Joback Method
cpg	679.37	J/molxK	761.47	Joback Method
cpg	697.18	J/molxK	797.21	Joback Method
cpg	713.70	J/molxK	832.94	Joback Method
cpg	728.96	J/molxK	868.67	Joback Method
cpg	743.01	J/molxK	904.41	Joback Method
cpg	755.86	J/molxK	940.14	Joback Method
dvisc	0.0020452	Paxs	424.93	Joback Method

dvisc	0.0011606	Paxs	475.06	Joback Method
dvisc	0.0007338	Paxs	525.20	Joback Method
dvisc	0.0005026	Paxs	575.34	Joback Method
dvisc	0.0003658	Paxs	625.47	Joback Method
dvisc	0.0002790	Paxs	675.61	Joback Method
dvisc	0.0002210	Paxs	725.74	Joback Method

Sources

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=U405405&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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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