

Glutaric acid, hept-2-yl (2-naphthyl)methyl ester

Inchi:	InChI=1S/C23H30O4/c1-3-4-5-9-18(2)27-23(25)13-8-12-22(24)26-17-19-14-15-20-10-6-7
InchiKey:	UKNLKFBVZHNQES-UHFFFAOYSA-N
Formula:	C23H30O4
SMILES:	CCCCC(C)OC(=O)CCCC(=O)OCc1ccc2ccccc2c1
Mol. weight [g/mol]:	370.48

Physical Properties

Property code	Value	Unit	Source
gf	-118.07	kJ/mol	Joback Method
hf	-596.80	kJ/mol	Joback Method
hfus	48.05	kJ/mol	Joback Method
hvap	89.29	kJ/mol	Joback Method
log10ws	-7.02		Crippen Method
logp	5.565		Crippen Method
mvol	306.590	ml/mol	McGowan Method
pc	1308.01	kPa	Joback Method
rinpol	2867.00		NIST Webbook
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tb	928.42	K	Joback Method
tc	1144.91	K	Joback Method
tf	549.93	K	Joback Method
vc	1.179	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	980.12	J/molxK	928.42	Joback Method
cpg	995.32	J/molxK	964.50	Joback Method
cpg	1009.37	J/molxK	1000.58	Joback Method
cpg	1022.31	J/molxK	1036.67	Joback Method
cpg	1034.21	J/molxK	1072.75	Joback Method
cpg	1045.12	J/molxK	1108.83	Joback Method
cpg	1055.12	J/molxK	1144.91	Joback Method
dvisc	0.0005856	Paxs	549.93	Joback Method

dvisc	0.0003381	Paxs	613.01	Joback Method
dvisc	0.0002163	Paxs	676.09	Joback Method
dvisc	0.0001493	Paxs	739.17	Joback Method
dvisc	0.0001093	Paxs	802.26	Joback Method
dvisc	0.0000837	Paxs	865.34	Joback Method
dvisc	0.0000665	Paxs	928.42	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392201&Units=SI
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

Legend

cp_g:	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:	Log ₁₀ of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m_{cvol}:	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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