Glutaric acid, 8-chlorooctyl (2-naphthyl)methyl ester

Inchi: InChI=1S/C24H31ClO4/c25-16-7-3-1-2-4-8-17-28-23(26)12-9-13-24(27)29-19-20-14-15-2

InchiKey: OOXSBHDRRSJWKD-UHFFFAOYSA-N

Formula: C24H31ClO4

SMILES: O=C(CCCC(=O)OCc1ccc2ccccc2c1)OCCCCCCCCCl

Mol. weight [g/mol]: 418.95

Physical Properties

Property code	Value	Unit	Source
gf	-119.14	kJ/mol	Joback Method
hf	-627.90	kJ/mol	Joback Method
hfus	58.36	kJ/mol	Joback Method
hvap	96.29	kJ/mol	Joback Method
log10ws	-7.48		Crippen Method
logp	6.176		Crippen Method
mcvol	332.920	ml/mol	McGowan Method
pc	1184.16	kPa	Joback Method
rinpol	3424.00		NIST Webbook
rinpol	3424.00		NIST Webbook
tb	989.17	K	Joback Method
tc	1212.87	K	Joback Method
tf	606.12	K	Joback Method
vc	1.290	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1064.19	J/mol×K	989.17	Joback Method
cpg	1125.11	J/mol×K	1175.59	Joback Method
cpg	1114.92	J/mol×K	1138.30	Joback Method
cpg	1103.81	J/mol×K	1101.02	Joback Method
cpg	1091.70	J/mol×K	1063.74	Joback Method
cpg	1078.52	J/mol×K	1026.45	Joback Method
cpg	1134.45	J/mol×K	1212.87	Joback Method
dvisc	0.0000544	Pa×s	989.17	Joback Method

dvisc	0.0000678	Pa×s	925.33	Joback Method
dvisc	0.0000874	Pa×s	861.49	Joback Method
dvisc	0.0001173	Pa×s	797.64	Joback Method
dvisc	0.0001656	Pa×s	733.80	Joback Method
dvisc	0.0002497	Pa×s	669.96	Joback Method
dvisc	0.0004105	Pa×s	606.12	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U392209&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

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