

Glutaric acid, 4-methyl-3-nitrobenzyl nonyl ester

Inchi:	InChI=1S/C22H33NO6/c1-3-4-5-6-7-8-9-15-28-21(24)11-10-12-22(25)29-17-19-14-13-18
InchiKey:	LHDSTYORCTVFNS-UHFFFAOYSA-N
Formula:	C22H33NO6
SMILES:	CCCCCCCCCOC(=O)CCCC(=O)OCc1ccc(C)c([N+](=O)[O-])c1
Mol. weight [g/mol]:	407.50

Physical Properties

Property code	Value	Unit	Source
gf	-204.78	kJ/mol	Joback Method
hf	-784.18	kJ/mol	Joback Method
hfus	62.93	kJ/mol	Joback Method
hvap	103.07	kJ/mol	Joback Method
log10ws	-7.06		Crippen Method
logp	5.411		Crippen Method
mvol	329.380	ml/mol	McGowan Method
pc	1168.82	kPa	Joback Method
rinpol	3081.00		NIST Webbook
rinpol	3081.00		NIST Webbook
tb	1043.82	K	Joback Method
tc	1278.00	K	Joback Method
tf	677.09	K	Joback Method
vc	1.290	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1107.06	J/molxK	1043.82	Joback Method
cpg	1119.70	J/molxK	1082.85	Joback Method
cpg	1130.80	J/molxK	1121.88	Joback Method
cpg	1140.40	J/molxK	1160.91	Joback Method
cpg	1148.56	J/molxK	1199.94	Joback Method
cpg	1155.30	J/molxK	1238.97	Joback Method
cpg	1160.68	J/molxK	1278.00	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U376786&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
hvp:	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
rinp:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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