

Glutaric acid, 3-methyl-2-nitrobenzyl octyl ester

Inchi:	InChI=1S/C21H31NO6/c1-3-4-5-6-7-8-15-27-19(23)13-10-14-20(24)28-16-18-12-9-11-17
InchiKey:	YNTBKLBYYRYCSA-UHFFFAOYSA-N
Formula:	C21H31NO6
SMILES:	CCCCCCCCOC(=O)CCCC(=O)OCc1cccc(C)c1[N+](=O)[O-]
Mol. weight [g/mol]:	393.47

Physical Properties

Property code	Value	Unit	Source
gf	-213.20	kJ/mol	Joback Method
hf	-763.54	kJ/mol	Joback Method
hfus	60.34	kJ/mol	Joback Method
hvap	100.84	kJ/mol	Joback Method
log10ws	-6.64		Crippen Method
logp	5.020		Crippen Method
mcvol	315.290	ml/mol	McGowan Method
pc	1249.49	kPa	Joback Method
rinpola	2887.00		NIST Webbook
rinpola	2887.00		NIST Webbook
tb	1020.94	K	Joback Method
tc	1250.92	K	Joback Method
tf	665.82	K	Joback Method
vc	1.234	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1046.88	J/molxK	1020.94	Joback Method
cpg	1059.43	J/molxK	1059.27	Joback Method
cpg	1070.51	J/molxK	1097.60	Joback Method
cpg	1080.17	J/molxK	1135.93	Joback Method
cpg	1088.45	J/molxK	1174.26	Joback Method
cpg	1095.38	J/molxK	1212.59	Joback Method
cpg	1100.99	J/molxK	1250.92	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U376738&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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
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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