

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

Inchi:	InChI=1S/C20H29NO6/c1-3-4-5-6-7-14-26-18(22)12-9-13-19(23)27-15-17-11-8-10-16(2)
InchiKey:	IVDWGJZKSIQORE-UHFFFAOYSA-N
Formula:	C20H29NO6
SMILES:	CCCCCCCOC(=O)CCCC(=O)OCc1cccc(C)c1[N+](=O)[O-]
Mol. weight [g/mol]:	379.45

Physical Properties

Property code	Value	Unit	Source
gf	-221.62	kJ/mol	Joback Method
hf	-742.90	kJ/mol	Joback Method
hfus	57.75	kJ/mol	Joback Method
hvap	98.62	kJ/mol	Joback Method
log10ws	-6.23		Crippen Method
logp	4.630		Crippen Method
mcvol	301.200	ml/mol	McGowan Method
pc	1338.82	kPa	Joback Method
rinqol	2783.00		NIST Webbook
tb	998.06	K	Joback Method
tc	1224.88	K	Joback Method
tf	654.55	K	Joback Method
vc	1.177	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	987.14	J/molxK	998.06	Joback Method
cpg	999.59	J/molxK	1035.86	Joback Method
cpg	1010.65	J/molxK	1073.67	Joback Method
cpg	1020.35	J/molxK	1111.47	Joback Method
cpg	1028.73	J/molxK	1149.27	Joback Method
cpg	1035.80	J/molxK	1187.07	Joback Method
cpg	1041.61	J/molxK	1224.88	Joback Method

Sources

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=U376737&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
hvac:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccol:	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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