

Glutaric acid, 2-ethylphenyl tetradecyl ester

Inchi:	InChI=1S/C27H44O4/c1-3-5-6-7-8-9-10-11-12-13-14-17-23-30-26(28)21-18-22-27(29)31
InchiKey:	HMWCGFFXGRAZKH-UHFFFAOYSA-N
Formula:	C27H44O4
SMILES:	CCCCCCCCCCCCCOC(=O)CCCC(=O)Oc1ccccc1CC
Mol. weight [g/mol]:	432.64

Physical Properties

Property code	Value	Unit	Source
gf	-188.60	kJ/mol	Joback Method
hf	-865.15	kJ/mol	Joback Method
hfus	64.91	kJ/mol	Joback Method
hvap	96.95	kJ/mol	Joback Method
log10ws	-8.57		Crippen Method
logp	7.569		Crippen Method
mcvol	382.410	ml/mol	McGowan Method
pc	864.04	kPa	Joback Method
rinpola	3201.00		NIST Webbook
tb	1001.40	K	Joback Method
tc	1228.17	K	Joback Method
tf	577.31	K	Joback Method
vc	1.488	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1306.45	J/molxK	1001.40	Joback Method
cpg	1324.35	J/molxK	1039.19	Joback Method
cpg	1340.59	J/molxK	1076.99	Joback Method
cpg	1355.23	J/molxK	1114.78	Joback Method
cpg	1368.34	J/molxK	1152.58	Joback Method
cpg	1379.97	J/molxK	1190.37	Joback Method
cpg	1390.19	J/molxK	1228.17	Joback Method
dvisc	0.0002685	Paxs	577.31	Joback Method
dvisc	0.0001367	Paxs	647.99	Joback Method

dvisc	0.0000795	Paxs	718.67	Joback Method
dvisc	0.0000510	Paxs	789.36	Joback Method
dvisc	0.0000351	Paxs	860.04	Joback Method
dvisc	0.0000256	Paxs	930.72	Joback Method
dvisc	0.0000195	Paxs	1001.40	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U358514&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
mccvol:	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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