

cis-Cyclohex-4-en-1,2-dicarboxylic acid, decyl 2-ethylhexyl ester

Inchi:	InChI=1S/C26H46O4/c1-4-7-9-10-11-12-13-16-20-29-25(27)23-18-14-15-19-24(23)26(28)
InchiKey:	CADIHWBXVDTATO-UHFFFAOYSA-N
Formula:	C26H46O4
SMILES:	CCCCCCCCCOC(=O)C1CC=CCC1C(=O)OCC(CC)CCCC
Mol. weight [g/mol]:	422.64

Physical Properties

Property code	Value	Unit	Source
gf	-255.54	kJ/mol	Joback Method
hf	-983.09	kJ/mol	Joback Method
hfus	59.27	kJ/mol	Joback Method
hvap	91.81	kJ/mol	Joback Method
log10ws	-7.45		Crippen Method
logp	7.012		Crippen Method
mvol	376.920	ml/mol	McGowan Method
pc	862.01	kPa	Joback Method
rinpol	2791.00		NIST Webbook
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tb	960.46	K	Joback Method
tc	1176.05	K	Joback Method
tf	516.00	K	Joback Method
vc	1.452	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1315.49	J/molxK	960.46	Joback Method
cpg	1334.86	J/molxK	996.39	Joback Method
cpg	1352.46	J/molxK	1032.32	Joback Method
cpg	1368.34	J/molxK	1068.26	Joback Method
cpg	1382.55	J/molxK	1104.19	Joback Method
cpg	1395.13	J/molxK	1140.12	Joback Method
cpg	1406.12	J/molxK	1176.05	Joback Method
dvisc	0.0005760	Paxs	516.00	Joback Method

dvisc	0.0002572	Paxs	590.08	Joback Method
dvisc	0.0001375	Paxs	664.15	Joback Method
dvisc	0.0000833	Paxs	738.23	Joback Method
dvisc	0.0000553	Paxs	812.31	Joback Method
dvisc	0.0000394	Paxs	886.38	Joback Method
dvisc	0.0000295	Paxs	960.46	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=U382637&Units=SI

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

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