

Cyclohexanecarboxylic acid, decyl ester

Other names:	decyl cyclohexanecarboxylate
Inchi:	InChI=1S/C17H32O2/c1-2-3-4-5-6-7-8-12-15-19-17(18)16-13-10-9-11-14-16/h16H,2-15H
InchiKey:	MOZHOBFFQUILDKL-UHFFFAOYSA-N
Formula:	C17H32O2
SMILES:	CCCCCCCCCOC(=O)C1CCCCC1
Mol. weight [g/mol]:	268.43
CAS:	93479-48-2

Physical Properties

Property code	Value	Unit	Source
gf	-117.21	kJ/mol	Joback Method
hf	-584.69	kJ/mol	Joback Method
hfus	34.41	kJ/mol	Joback Method
hvap	63.02	kJ/mol	Joback Method
log10ws	-5.45		Crippen Method
logp	5.251		Crippen Method
mcvol	246.970	ml/mol	McGowan Method
pc	1480.43	kPa	Joback Method
rinpol	1905.95		NIST Webbook
rinpol	1909.72		NIST Webbook
tb	684.20	K	Joback Method
tc	872.77	K	Joback Method
tf	360.89	K	Joback Method
vc	0.945	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	728.28	J/mol×K	684.20	Joback Method
cpg	820.87	J/mol×K	841.35	Joback Method
cpg	804.46	J/mol×K	809.92	Joback Method
cpg	787.02	J/mol×K	778.49	Joback Method
cpg	768.52	J/mol×K	747.06	Joback Method
cpg	748.95	J/mol×K	715.63	Joback Method

cpg	836.28	J/mol×K	872.77	Joback Method
dvisc	0.0001138	Paxs	684.20	Joback Method
dvisc	0.0001536	Paxs	630.31	Joback Method
dvisc	0.0002195	Paxs	576.43	Joback Method
dvisc	0.0003374	Paxs	522.54	Joback Method
dvisc	0.0005725	Paxs	468.66	Joback Method
dvisc	0.0011147	Paxs	414.77	Joback Method
dvisc	0.0026482	Paxs	360.89	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=C93479482&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

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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