

Carbonic acid, decyl tetradecyl ester

Inchi:	InChI=1S/C25H50O3/c1-3-5-7-9-11-13-14-15-16-18-20-22-24-28-25(26)27-23-21-19-17-
InchiKey:	FAUMYZWTQVCOGN-UHFFFAOYSA-N
Formula:	C25H50O3
SMILES:	CCCCCCCCCCCCCOC(=O)CCCCCCCCCCC
Mol. weight [g/mol]:	398.66

Physical Properties

Property code	Value	Unit	Source
gf	-179.30	kJ/mol	Joback Method
hf	-936.35	kJ/mol	Joback Method
hfus	64.48	kJ/mol	Joback Method
hvap	82.81	kJ/mol	Joback Method
log10ws	-9.21		Crippen Method
logp	8.981		Crippen Method
mvol	376.420	ml/mol	McGowan Method
pc	776.34	kPa	Joback Method
rinpol	2714.00		NIST Webbook
rinpol	2714.00		NIST Webbook
tb	870.11	K	Joback Method
tc	1066.69	K	Joback Method
tf	465.90	K	Joback Method
vc	1.478	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1255.08	J/molxK	870.11	Joback Method
cpg	1277.28	J/molxK	902.87	Joback Method
cpg	1298.10	J/molxK	935.64	Joback Method
cpg	1317.57	J/molxK	968.40	Joback Method
cpg	1335.75	J/molxK	1001.16	Joback Method
cpg	1352.65	J/molxK	1033.93	Joback Method
cpg	1368.31	J/molxK	1066.69	Joback Method
dvisc	0.0006233	Paxs	465.90	Joback Method

dvisc	0.0002650	Paxs	533.27	Joback Method
dvisc	0.0001365	Paxs	600.64	Joback Method
dvisc	0.0000803	Paxs	668.00	Joback Method
dvisc	0.0000521	Paxs	735.37	Joback Method
dvisc	0.0000364	Paxs	802.74	Joback Method
dvisc	0.0000268	Paxs	870.11	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=U383163&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cp_g:	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
h_{vap}:	Enthalpy of vaporization at standard conditions
log₁₀ws:	Log ₁₀ of Water solubility in mol/l
log_p:	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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