

Carbonic acid, octadecyl vinyl ester

Inchi: InChI=1S/C21H40O3/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-24-21(22)23-4-2
InchiKey: RQCMOYRPNPEGDL-UHFFFAOYSA-N
Formula: C21H40O3
SMILES: C=COC(=O)OCCCCCCCCCCCCCCCCCCC
Mol. weight [g/mol]: 340.54

Physical Properties

Property code	Value	Unit	Source
gf	-125.14	kJ/mol	Joback Method
hf	-728.36	kJ/mol	Joback Method
hfus	52.84	kJ/mol	Joback Method
hvap	73.24	kJ/mol	Joback Method
log10ws	-7.89		Crippen Method
logp	7.545		Crippen Method
mvol	315.760	ml/mol	McGowan Method
pc	999.54	kPa	Joback Method
rinpol	2299.00		NIST Webbook
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tb	775.27	K	Joback Method
tc	952.22	K	Joback Method
tf	419.06	K	Joback Method
vc	1.234	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	976.22	J/molxK	775.27	Joback Method
cpg	1063.64	J/molxK	922.72	Joback Method
cpg	1048.05	J/molxK	893.23	Joback Method
cpg	1031.53	J/molxK	863.74	Joback Method
cpg	1014.07	J/molxK	834.25	Joback Method
cpg	995.64	J/molxK	804.76	Joback Method
cpg	1078.32	J/molxK	952.22	Joback Method
dvisc	0.0000513	Paxs	775.27	Joback Method

dvisc	0.0000686	Paxs	715.90	Joback Method
dvisc	0.0000967	Paxs	656.53	Joback Method
dvisc	0.0001458	Paxs	597.16	Joback Method
dvisc	0.0002407	Paxs	537.80	Joback Method
dvisc	0.0004502	Paxs	478.43	Joback Method
dvisc	0.0010054	Paxs	419.06	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=U382544&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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