

Tetraethylene glycol monochlorohydrine

Inchi:	InChI=1S/C8H17ClO4/c9-1-3-11-5-7-13-8-6-12-4-2-10/h10H,1-8H2
InchiKey:	ISYSKYJOWFLWCM-UHFFFAOYSA-N
Formula:	C8H17ClO4
SMILES:	OCCOCCOCCOCCCI
Mol. weight [g/mol]:	212.67
CAS:	5197-66-0

Physical Properties

Property code	Value	Unit	Source
gf	-447.27	kJ/mol	Joback Method
hf	-773.08	kJ/mol	Joback Method
hfus	28.32	kJ/mol	Joback Method
hvap	61.70	kJ/mol	Joback Method
log10ws	0.15		Crippen Method
logp	0.267		Crippen Method
mcvol	159.300	ml/mol	McGowan Method
pc	2545.61	kPa	Joback Method
tb	579.31	K	Joback Method
tc	744.35	K	Joback Method
tf	219.15 ± 3.00	K	NIST Webbook
vc	0.606	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	391.24	J/mol×K	579.31	Joback Method
cpg	402.15	J/mol×K	606.82	Joback Method
cpg	412.70	J/mol×K	634.32	Joback Method
cpg	422.87	J/mol×K	661.83	Joback Method
cpg	432.67	J/mol×K	689.34	Joback Method
cpg	442.08	J/mol×K	716.85	Joback Method
cpg	451.09	J/mol×K	744.35	Joback Method
dvisc	0.0012681	Pa×s	377.68	Joback Method
dvisc	0.0036277	Pa×s	337.35	Joback Method

dvisc	0.0005429	Pa×s	418.00	Joback Method
dvisc	0.0002699	Pa×s	458.33	Joback Method
dvisc	0.0001502	Pa×s	498.66	Joback Method
dvisc	0.0000913	Pa×s	538.98	Joback Method
dvisc	0.0000594	Pa×s	579.31	Joback Method
hvapt	68.60	kJ/mol	469.00	NIST Webbook
hvapt	68.53	kJ/mol	273.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5197660&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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