

Ethyl 2,3-epoxybutyrate

Other names:	Oxiranecarboxylic acid, 3-methyl-, ethyl ester Butyric acid, 2,3-epoxy-, ethyl ester 2,3-Epoxybutyric acid, ethyl ester Ethylester kyseliny 2,3-epoxymaselne Ethyl 3-methyl-2-oxiranecarboxylate Ethyl 2,3-epoxy-butanoate
Inchi:	InChI=1S/C6H10O3/c1-3-8-6(7)5-4(2)9-5/h4-5H,3H2,1-2H3
InchiKey:	VYXHEFOZRVPJRK-UHFFFAOYSA-N
Formula:	C6H10O3
SMILES:	CCOC(=O)C1OC1C
Mol. weight [g/mol]:	130.14
CAS:	19780-35-9

Physical Properties

Property code	Value	Unit	Source
gf	-267.36	kJ/mol	Joback Method
hf	-491.51	kJ/mol	Joback Method
hfus	21.27	kJ/mol	Joback Method
hvap	42.22	kJ/mol	Joback Method
log10ws	-0.40		Crippen Method
logp	0.337		Crippen Method
mcvol	97.850	ml/mol	McGowan Method
pc	3628.97	kPa	Joback Method
tb	441.99	K	Joback Method
tc	634.30	K	Joback Method
tf	269.81	K	Joback Method
vc	0.372	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	212.11	J/molxK	441.99	Joback Method
cpg	223.15	J/molxK	474.04	Joback Method
cpg	233.69	J/molxK	506.09	Joback Method

cpg	243.76	J/molxK	538.15	Joback Method
cpg	253.35	J/molxK	570.20	Joback Method
cpg	262.49	J/molxK	602.25	Joback Method
cpg	271.17	J/molxK	634.30	Joback Method
dvisc	0.0014489	Paxs	269.81	Joback Method
dvisc	0.0011263	Paxs	298.51	Joback Method
dvisc	0.0009150	Paxs	327.20	Joback Method
dvisc	0.0007687	Paxs	355.90	Joback Method
dvisc	0.0006628	Paxs	384.60	Joback Method
dvisc	0.0005834	Paxs	413.29	Joback Method
dvisc	0.0005221	Paxs	441.99	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=C19780359&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
Crippen Method:	https://www.chemeo.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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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