

Isopentyl 3-butenoate

Other names:	3-Butenoic acid, 3-methylbutyl ester
Inchi:	InChI=1S/C9H16O2/c1-4-5-9(10)11-7-6-8(2)3/h4,8H,1,5-7H2,2-3H3
InchiKey:	ZOLACEAETZCXMH-UHFFFAOYSA-N
Formula:	C9H16O2
SMILES:	C=CCC(=O)OCCC(C)C
Mol. weight [g/mol]:	156.22

Physical Properties

Property code	Value	Unit	Source
gf	-123.62	kJ/mol	Joback Method
hf	-353.74	kJ/mol	Joback Method
hfus	17.05	kJ/mol	Joback Method
hvap	43.73	kJ/mol	Joback Method
log10ws	-2.06		Crippen Method
logp	2.152		Crippen Method
mvol	140.810	ml/mol	McGowan Method
pc	2535.37	kPa	Joback Method
rinpol	1050.00		NIST Webbook
rinpol	1016.00		NIST Webbook
tb	477.85	K	Joback Method
tc	658.67	K	Joback Method
tf	246.59	K	Joback Method
vc	0.538	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	305.61	J/mol×K	477.85	Joback Method
cpg	365.59	J/mol×K	628.53	Joback Method
cpg	354.60	J/mol×K	598.39	Joback Method
cpg	343.12	J/mol×K	568.26	Joback Method
cpg	331.13	J/mol×K	538.12	Joback Method
cpg	318.63	J/mol×K	507.99	Joback Method
cpg	376.08	J/mol×K	658.67	Joback Method

dvisc	0.0002296	Paxs	477.85	Joback Method
dvisc	0.0003024	Paxs	439.31	Joback Method
dvisc	0.0004198	Paxs	400.76	Joback Method
dvisc	0.0006250	Paxs	362.22	Joback Method
dvisc	0.0010229	Paxs	323.68	Joback Method
dvisc	0.0019129	Paxs	285.13	Joback Method
dvisc	0.0043503	Paxs	246.59	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R5357&Units=SI
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

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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