

TERT-BUTYL METHACRYLATE

Other names:	Methacrylic acid, tert-butyl ester Methylacrylic acid, tert-butyl ester
Inchi:	InChI=1S/C8H14O2/c1-6(2)7(9)10-8(3,4)5/h1H2,2-5H3
InchiKey:	SJMYWORNLP SJQO-UHFFFAOYSA-N
Formula:	C8H14O2
SMILES:	C=C(C)C(=O)OC(C)(C)C
Mol. weight [g/mol]:	142.20
CAS:	585-07-9

Physical Properties

Property code	Value	Unit	Source
hf	-444.64	kJ/mol	Cheméo Relay (1.0)
hfus	9.26	kJ/mol	Joback Method
hvap	44.45	kJ/mol	Cheméo Relay (1.0)
ie	9.58	eV	Cheméo Relay (1.0)
log10ws	-1.73		Cheméo Relay (1.0)
logp	1.904		Crippen Method
mcvol	126.720	ml/mol	McGowan Method
pc	2847.48	kPa	Joback Method
tb	405.88	K	Cheméo Relay (1.0)
tf	243.63	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	265.65	J/mol×K	452.06	Joback Method
cpg	278.66	J/mol×K	484.33	Joback Method
cpg	291.02	J/mol×K	516.60	Joback Method
cpg	302.74	J/mol×K	548.88	Joback Method
cpg	313.84	J/mol×K	581.15	Joback Method
cpg	324.35	J/mol×K	613.42	Joback Method
cpg	334.29	J/mol×K	645.69	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.24902e+01
Coeff. B	-3.06332e+03
Coeff. C	-5.37820e+01
Temperature range (K), min.	304.82
Temperature range (K), max.	480.50

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C585079&Units=SI

Legend

cpg:	Ideal gas heat capacity
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tf:	Normal melting (fusion) point

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