

Benzoic acid, 4-methyl-, 2-methylpropyl ester

Other names:	p-Toluic acid, isobutyl ester Isobutyl 4-methylbenzoate 2-Methylpropyl 4-methylbenzoate
Inchi:	InChI=1S/C12H16O2/c1-9(2)8-14-12(13)11-6-4-10(3)5-7-11/h4-7,9H,8H2,1-3H3
InchiKey:	IELVQABKIBOBRG-UHFFFAOYSA-N
Formula:	C12H16O2
SMILES:	Cc1ccc(C(=O)OCC(C)C)cc1
Mol. weight [g/mol]:	192.25
CAS:	29240-30-0

Physical Properties

Property code	Value	Unit	Source
gf	-83.42	kJ/mol	Joback Method
hf	-316.03	kJ/mol	Joback Method
hfus	19.75	kJ/mol	Joback Method
hvap	54.01	kJ/mol	Joback Method
log10ws	-3.20		Crippen Method
logp	2.808		Crippen Method
mcvol	163.620	ml/mol	McGowan Method
pc	2500.00	kPa	Joback Method
tb	581.47	K	Joback Method
tc	792.78	K	Joback Method
tf	321.10	K	Joback Method
vc	0.618	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	394.16	J/mol×K	581.47	Joback Method
cpg	409.45	J/mol×K	616.69	Joback Method
cpg	423.89	J/mol×K	651.91	Joback Method
cpg	437.50	J/mol×K	687.12	Joback Method
cpg	450.30	J/mol×K	722.34	Joback Method
cpg	462.32	J/mol×K	757.56	Joback Method

cpg	473.55	J/mol×K	792.78	Joback Method
dvisc	0.0021607	Pa×s	321.10	Joback Method
dvisc	0.0010969	Pa×s	364.50	Joback Method
dvisc	0.0006432	Pa×s	407.89	Joback Method
dvisc	0.0004180	Pa×s	451.29	Joback Method
dvisc	0.0002929	Pa×s	494.68	Joback Method
dvisc	0.0002174	Pa×s	538.08	Joback Method
dvisc	0.0001687	Pa×s	581.47	Joback Method

Sources

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=C29240300&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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