1,2-dimethylpropyl radical

Inchi: InChI=1S/C5H11/c1-4-5(2)3/h4-5H,1-3H3
InchiKey: XRHZEWCLADXEIM-UHFFFAOYSA-N
Formula: C5H11
SMILES: C[CH]C(C)C
Mol. weight [g/mol]: 71.14
CAS: 2679-30-3

Physical Properties

Property code	Value	Unit	Source
gf	38.72	kJ/mol	Joback Method
hf	-101.28	kJ/mol	Joback Method
hfus	3.34	kJ/mol	Joback Method
hvap	25.80	kJ/mol	Joback Method
log10ws	-1.28		Crippen Method
logp	1.867		Crippen Method
mcvol	79.160	ml/mol	McGowan Method
pc	3727.11	kPa	Joback Method
tb	312.22	K	Joback Method
tc	479.72	K	Joback Method
tf	132.48	K	Joback Method
vc	0.294	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	119.66	J/mol×K	312.22	Joback Method
cpg	129.21	J/mol×K	340.14	Joback Method
cpg	138.29	J/mol×K	368.05	Joback Method
cpg	146.92	J/mol×K	395.97	Joback Method
cpg	155.12	J/mol×K	423.89	Joback Method
cpg	162.91	J/mol×K	451.81	Joback Method
cpg	170.30	J/mol×K	479.72	Joback Method
dvisc	0.0012555	Pa×s	132.48	Joback Method
dvisc	0.0007167	Pa×s	162.44	Joback Method

dvisc	0.0004871	Pa×s	192.39	Joback Method
dvisc	0.0003674	Pa×s	222.35	Joback Method
dvisc	0.0002963	Pa×s	252.31	Joback Method
dvisc	0.0002502	Pa×s	282.26	Joback Method
dvisc	0.0002181	Pa×s	312.22	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2679303&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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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