2-Methylpropene, trimers

Other names: Triisobutylene
Inchi: InChI=1S/3C4H8/c3*1-4(2)3/h3*1H2,2-3H3
InchiKey: ZGWNHIRGFLHURN-UHFFFAOYSA-N
Formula: C12H24
SMILES: C=C(C)C.C=C(C)C.C=C(C)C
Mol. weight [g/mol]: 168.32
CAS: 7756-94-7

Physical Properties

Property code	Value	Unit	Source
gf	78.51	kJ/mol	Joback Method
hf	-167.33	kJ/mol	Joback Method
hfus	12.34	kJ/mol	Joback Method
hvap	41.12	kJ/mol	Joback Method
log10ws	-4.62		Crippen Method
logp	4.747		Crippen Method
mcvol	188.760	ml/mol	McGowan Method
pc	1728.90	kPa	Joback Method
tb	466.44	K	Joback Method
tc	658.23	K	Joback Method
tf	112.36	K	Joback Method
vc	0.690	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.97	J/mol×K	466.44	Joback Method
cpg	400.80	J/mol×K	498.40	Joback Method
cpg	420.14	J/mol×K	530.37	Joback Method
cpg	438.95	J/mol×K	562.33	Joback Method
cpg	457.16	J/mol×K	594.30	Joback Method
cpg	474.73	J/mol×K	626.26	Joback Method
cpg	491.62	J/mol×K	658.23	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7756947&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

Legend

cpg:	Ideal gas heat capacity
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