Methane, tris(n-propylthio)-

Inchi: InChI=1S/C10H22S3/c1-4-7-11-10(12-8-5-2)13-9-6-3/h10H,4-9H2,1-3H3
InchiKey: LGJCQHBAMDVMHA-UHFFFAOYSA-N
Formula: C10H22S3
SMILES: CCCSC(SCCC)SCCC
Mol. weight [g/mol]: 238.48
CAS: 59969-91-4

Physical Properties

Property code	Value	Unit	Source
gf	130.24	kJ/mol	Joback Method
hf	-129.40	kJ/mol	Joback Method
hfus	30.52	kJ/mol	Joback Method
hvap	57.92	kJ/mol	Joback Method
log10ws	-4.76		Crippen Method
logp	4.700		Crippen Method
mcvol	200.810	ml/mol	McGowan Method
pc	2227.09	kPa	Joback Method
tb	634.10	K	Joback Method
tc	855.34	K	Joback Method
tf	290.66	K	Joback Method
vc	0.751	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	493.12	J/mol×K	634.10	Joback Method
cpg	509.65	J/mol×K	670.97	Joback Method
cpg	525.23	J/mol×K	707.85	Joback Method
cpg	539.86	J/mol×K	744.72	Joback Method
cpg	553.54	J/mol×K	781.59	Joback Method
cpg	566.27	J/mol×K	818.46	Joback Method
cpg	578.08	J/mol×K	855.34	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C59969914&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