Pentasulfide, dimethyl

Other names:	Dimethyl pentasulfide
	Dimethyl pentasulphide
Inchi:	InChI=1S/C2H6S5/c1-3-5-7-6-4-2/h1-2H3
InchiKey:	HFHOSCCMQJJVKR-UHFFFAOYSA-N
Formula:	C2H6S5
SMILES:	CSSSSSC
Mol. weight [g/mol]:	190.39
CAS:	7330-31-6

Physical Properties

Property code	Value	Unit	Source
gf	131.56	kJ/mol	Joback Method
hf	124.74	kJ/mol	Joback Method
hfus	21.59	kJ/mol	Joback Method
hvap	54.13	kJ/mol	Joback Method
log10ws	-4.04		Crippen Method
logp	3.572		Crippen Method
mcvol	120.790	ml/mol	McGowan Method
pc	5695.98	kPa	Joback Method
rinpol	1426.00		NIST Webbook
rinpol	1421.00		NIST Webbook
rinpol	1428.00		NIST Webbook
rinpol	1415.00		NIST Webbook
rinpol	1396.00		NIST Webbook
rinpol	1415.00		NIST Webbook
rinpol	1426.00		NIST Webbook
rinpol	1421.00		NIST Webbook
rinpol	1428.00		NIST Webbook
rinpol	1428.00		NIST Webbook
rinpol	1396.00		NIST Webbook
ripol	2185.00		NIST Webbook
ripol	2185.00		NIST Webbook
tb	589.06	K	Joback Method
tc	891.25	K	Joback Method
tf	284.30	K	Joback Method
vc	0.417	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	211.35	J/mol×K	589.06	Joback Method
cpg	219.72	J/mol×K	639.42	Joback Method
cpg	227.47	J/mol×K	689.79	Joback Method
cpg	234.48	J/mol×K	740.15	Joback Method
cpg	240.67	J/mol×K	790.52	Joback Method
cpg	245.94	J/mol×K	840.88	Joback Method
cpg	250.20	J/mol×K	891.25	Joback Method

Sources

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=C7330316&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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
rinpol: Non-polar retention indices
ripol: Polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume