Sulfur dicyanide

Inchi: InChI=1S/C2N2S/c3-1-5-2-4
InchiKey: RFMQOHXWHFHOJF-UHFFFAOYSA-N
Formula: C2N2S
SMILES: N#CSC#N
Mol. weight [g/mol]: 84.10
CAS: 627-52-1

Physical Properties

Property code	Value	Unit	Source
gf	265.44	kJ/mol	Joback Method
hf	287.02	kJ/mol	Joback Method
hfus	8.08	kJ/mol	Joback Method
hvap	47.82	kJ/mol	Joback Method
ie	11.32	eV	NIST Webbook
log10ws	-1.27		Crippen Method
logp	0.682		Crippen Method
mcvol	58.150	ml/mol	McGowan Method
pc	4802.50	kPa	Joback Method
tb	518.10	K	Joback Method
tc	763.18	K	Joback Method
tf	276.68	K	Joback Method
vc	0.254	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	85.39	J/mol×K	518.10	Joback Method
cpg	87.53	J/mol×K	558.95	Joback Method
cpg	89.56	J/mol×K	599.79	Joback Method
cpg	91.49	J/mol×K	640.64	Joback Method
cpg	93.31	J/mol×K	681.49	Joback Method
cpg	94.99	J/mol×K	722.33	Joback Method
cpg	96.52	J/mol×K	763.18	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=C627521&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
ie:	Ionization energy
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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