

Sulfur chloride

Inchi: InChI=1S/CIS/c1-2
InchiKey: NGDNCZPCIZNCQS-UHFFFAOYSA-N
Formula: CIS
SMILES: [S]Cl
Mol. weight [g/mol]: 67.52
CAS: 14989-32-3

Physical Properties

Property code	Value	Unit	Source
gf	22.69	kJ/mol	Joback Method
hf	38.61	kJ/mol	Joback Method
hfus	5.76	kJ/mol	Joback Method
hvap	26.65	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.338		Crippen Method
mcvol	37.300	ml/mol	McGowan Method
pc	7014.41	kPa	Joback Method
tb	304.91	K	Joback Method
tc	503.89	K	Joback Method
tf	170.45	K	Joback Method
vc	0.130	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	34.93	J/mol×K	304.91	Joback Method
cpg	35.84	J/mol×K	338.07	Joback Method
cpg	36.55	J/mol×K	371.24	Joback Method
cpg	37.11	J/mol×K	404.40	Joback Method
cpg	37.51	J/mol×K	437.56	Joback Method
cpg	37.77	J/mol×K	470.73	Joback Method
cpg	37.93	J/mol×K	503.89	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14989323&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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