

Ammonium persulfate

Inchi:	InChI=1S/H8N2O8S2/c1-7-11(3,4)9-10-12(5,6)8-2/h1-2H4
InchiKey:	ZYXMJLROYBRJDL-UHFFFAOYSA-N
Formula:	H8N2O8S2
SMILES:	NOS(=O)(=O)OOS(=O)(=O)ON
Mol. weight [g/mol]:	228.20

Physical Properties

Property code	Value	Unit	Source
gf	-1275.06	kJ/mol	Joback Method
hf	-1411.33	kJ/mol	Joback Method
hfus	33.66	kJ/mol	Joback Method
hvap	83.79	kJ/mol	Joback Method
log10ws	0.36		Crippen Method
logp	-2.795		Crippen Method
mvol	110.480	ml/mol	McGowan Method
pc	13458.15	kPa	Joback Method
tb	529.70	K	Joback Method
tc	720.50	K	Joback Method
tf	422.32	K	Joback Method
vc	0.417	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	247.57	J/mol×K	529.70	Joback Method
cpg	253.99	J/mol×K	561.50	Joback Method
cpg	260.30	J/mol×K	593.30	Joback Method
cpg	266.45	J/mol×K	625.10	Joback Method
cpg	272.36	J/mol×K	656.90	Joback Method
cpg	277.97	J/mol×K	688.70	Joback Method
cpg	283.22	J/mol×K	720.50	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I
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=B6000559&Units=SI

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
mccvol:	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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