

Ammonium sulfate

Other names:	ammonium sulphate
Inchi:	InChI=1S/H8N2O4S/c1-5-7(3,4)6-2/h1-2H4
InchiKey:	KTMPPTWZBSFVPI-UHFFFAOYSA-N
Formula:	H8N2O4S
SMILES:	NOS(=O)(=O)ON
Mol. weight [g/mol]:	132.14
CAS:	7783-20-2

Physical Properties

Property code	Value	Unit	Source
gf	-596.52	kJ/mol	Joback Method
hf	-693.54	kJ/mol	Joback Method
hfus	2.85	kJ/mol	Phase transitions of some sulfur-containing ammonium salts
hvap	60.33	kJ/mol	Joback Method
log10ws	0.34		Crippen Method
logp	-1.988		Crippen Method
mcvol	70.650	ml/mol	McGowan Method
pc	10348.87	kPa	Joback Method
tb	437.08	K	Joback Method
tc	635.89	K	Joback Method
tf	339.30	K	Joback Method
vc	0.256	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	144.70	J/molxK	437.08	Joback Method
cpg	149.29	J/molxK	470.22	Joback Method
cpg	153.87	J/molxK	503.35	Joback Method
cpg	158.40	J/molxK	536.49	Joback Method
cpg	162.86	J/molxK	569.62	Joback Method
cpg	167.20	J/molxK	602.76	Joback Method

Sources

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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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