

# Ammonium bisulfate

<b>Other names:</b>	ammonium hydrogensulphate
<b>Inchi:</b>	InChI=1S/H5NO4S/c1-5-6(2,3)4/h1H4,(H,2,3,4)
<b>InchiKey:</b>	BLCJRKAWVARSDX-UHFFFAOYSA-N
<b>Formula:</b>	H5NO4S
<b>SMILES:</b>	NOS(=O)(=O)O
<b>Mol. weight [g/mol]:</b>	115.11
<b>CAS:</b>	7803-63-6

## Physical Properties

Property code	Value	Unit	Source
gf	-694.79	kJ/mol	Joback Method
hf	-747.34	kJ/mol	Joback Method
hfus	17.61	kJ/mol	Joback Method
hvap	63.96	kJ/mol	Joback Method
log10ws	0.53		Crippen Method
logp	-1.320		Crippen Method
mcvol	60.670	ml/mol	McGowan Method
pc	11537.21	kPa	Joback Method
tb	434.31	K	Joback Method
tc	611.70	K	Joback Method
tf	294.63	K	Joback Method
vc	0.228	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	118.85	J/molxK	434.31	Joback Method
cpg	122.34	J/molxK	463.87	Joback Method
cpg	125.80	J/molxK	493.44	Joback Method
cpg	129.19	J/molxK	523.00	Joback Method
cpg	132.51	J/molxK	552.57	Joback Method
cpg	135.73	J/molxK	582.13	Joback Method
cpg	138.84	J/molxK	611.70	Joback Method

# Sources

<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C7803636&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C7803636&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>h vap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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