Ammonium perchlorate

Other names:	ammonium perchlorate (AP)
	perchloric acid, ammonium salt
Inchi:	InChI=1S/ClH4NO4/c2-6-1(3,4)5/h2H4
InchiKey:	BGZZNVNAKMESMV-UHFFFAOYSA-N
Formula:	ClH4NO4
SMILES:	NO[Cl+3]([O-])([O-])[O-]
Mol. weight [g/mol]:	117.49
CAS:	7790-98-9

Physical Properties

Property code	Value	Unit	Source
mcvol	56.560	ml/mol	McGowan Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
rhos	1977.00	kg/m3	298.00	Thermal decomposition of mechanoactivated ammonium perchlorate

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7790989&Units=SI
Limiting partial molar volumes and expansibilities of ammonium perchlorate, tetraalkylammonium tetraphenylborate in N,N-dimethylformamide:	https://www.doi.org/10.1016/j.jct.2005.05.008
Thermal decomposition of mechanoactivated ammonium perchlorates and tetrabutylammonium	https://www.doi.org/10.1016/j.tca.2018.09.007
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

Legend

mcvol:	McGowan's characteristic volume
rhos:	Solid Density

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