

lithium chloride

Inchi: InChI=1S/ClH.Li/h1H;/q;+1/p-1
InchiKey: KWGKDLIKAYFUFQ-UHFFFAOYSA-M
Formula: ClLi
SMILES: [Cl-].[Li+]
Mol. weight [g/mol]: 42.39
CAS: 7447-41-8

Physical Properties

Property code	Value	Unit	Source
affp	827.00	kJ/mol	NIST Webbook
basg	800.50	kJ/mol	NIST Webbook
ea	0.59 ± 0.01	eV	NIST Webbook
ea	0.61 ± 0.02	eV	NIST Webbook
ea	1.28	eV	NIST Webbook
ie	10.00	eV	NIST Webbook
ie	9.57	eV	NIST Webbook
ie	10.10	eV	NIST Webbook
ie	10.01 ± 0.02	eV	NIST Webbook
ie	9.80 ± 0.10	eV	NIST Webbook
ie	9.57	eV	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
speedsl	1988.00	m/s	950.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl3 Mixtures (M = Li, Na, K, and Cs)
speedsl	1973.00	m/s	976.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl3 Mixtures (M = Li, Na, K, and Cs)

speedsl	1945.00	m/s	1003.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1924.00	m/s	1030.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1894.00	m/s	1062.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1879.00	m/s	1082.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1858.00	m/s	1110.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1825.00	m/s	1148.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)
speedsl	1791.00	m/s	1181.00	Sound Velocity and Adiabatic Compressibility of Molten MCl + NdCl ₃ Mixtures (M = Li, Na, K, and Cs)

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$

[illegible]

<https://www.doi.org/10.1021/je020144o>
<https://www.doi.org/10.1021/acs.jced.9b00405>
<https://www.doi.org/10.1016/j.jct.2013.07.024>
<https://www.doi.org/10.1016/j.fluid.2015.09.005>
<https://www.doi.org/10.1016/j.fluid.2015.11.018>
<https://www.doi.org/10.1021/acs.jced.5b00941>
<https://www.doi.org/10.1021/acs.jced.8b00618>
<http://webbook.nist.gov/cgi/cbook.cgi?ID=C7447418&Units=SI>
<https://www.doi.org/10.1016/j.fluid.2015.02.009>
<https://www.doi.org/10.1016/j.jct.2008.12.022>
<https://www.doi.org/10.1016/j.jct.2016.07.003>
<https://www.doi.org/10.1021/acs.jced.8b00777>
<https://www.doi.org/10.1021/acs.jced.8b01217>
<https://www.doi.org/10.1016/j.fluid.2014.01.037>
<https://www.doi.org/10.1021/acs.jced.7b00800>
<https://www.doi.org/10.1016/j.jct.2009.03.005>
<https://www.doi.org/10.1021/acs.jced.7b00690>
<https://www.doi.org/10.1021/je500420g>
<https://www.doi.org/10.1016/j.jct.2018.10.023>
<https://www.doi.org/10.1016/j.jct.2018.10.003>
<https://www.doi.org/10.1021/je050111j>
<https://www.doi.org/10.1007/s10765-019-2558-5>
<https://www.doi.org/10.1021/je5001523>
<https://www.doi.org/10.1021/je101012n>
<https://www.doi.org/10.1016/j.fluid.2016.12.013>
<https://www.doi.org/10.1016/j.jct.2004.01.004>
<https://www.doi.org/10.1021/je060124c>
<https://www.doi.org/10.1016/j.jct.2013.08.018>
<https://www.doi.org/10.1016/j.jct.2008.12.003>
<https://www.doi.org/10.1016/j.fluid.2015.08.005>
<https://www.doi.org/10.1021/je900656c>
<https://www.doi.org/10.1021/acs.jced.6b00855>
<https://www.doi.org/10.1021/je100554g>
<https://www.doi.org/10.1021/je060492g>
<https://www.doi.org/10.1016/j.fluid.2006.02.012>
<https://www.doi.org/10.1021/je800150h>
<https://www.doi.org/10.1021/acs.jced.5b00682>
<https://www.doi.org/10.1016/j.fluid.2004.10.018>
<https://www.doi.org/10.1021/acs.jced.9b00421>
<https://www.doi.org/10.1021/je025561f>

Legend

affp:	Proton affinity
basg:	Gas basicity
ea:	Electron affinity
ie:	Ionization energy
pvap:	Vapor pressure
speedsl:	Speed of sound in fluid

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