Choline chloride

Other names:	(.beta.-hydroxyethyl)trimethylammonium chloride
	(2-hydroxyethyl)trimethylammonium chloride
	2-hydroxy-N,N,N-trimethylethanaminium chloride
	cholinium chloride
	trimethyl(2-hydroxyethyl)ammonium chloride
Inchi:	InChI=1S/C5H14NO.ClH/c1-6(2,3)4-5-7;/h7H,4-5H2,1-3H3;1H/q+1;/p-1
InchiKey:	SGMZJAMFUVOLNK-UHFFFAOYSA-M
Formula:	C5H14ClNO
SMILES:	C[N+](C)(C)CCO.[Cl-]
Mol. weight [g/mol]:	139.62
CAS:	67-48-1

Physical Properties

Property code	Value	Unit	Source
tf	577.20	K	Formation of Deep Eutectic Solvents by Phenols and Choline Chloride and Their Physical Properties
tt	351.62	K	Thermal Properties of Choline Chloride/Urea System Studied under Moisture-Free Atmosphere

Sources

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Effective extraction of benzene and thiophene by novel deep eutectic solvents:	https://www.doi.org/10.1016/j.fluid.2018.11.025
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Solubility modelling and thermodynamic properties of allopurinol in aqueous solutions of four deep eutectic solvents:	https://www.doi.org/10.1016/j.jct.2019.01.018
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Thermodynamic characterization of deep eutectic solvents at high pressures:	https://www.doi.org/10.1016/j.fluid.2019.112249
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Formation of type III deep eutectic solvents and effect of water on their intermolecular interactions:	https://www.doi.org/10.1016/j.fluid.2017.01.022
Separation of azeotropic mixtures (ethanol and water) enhanced by deep eutectic solvents:	https://www.doi.org/10.1016/j.fluid.2017.03.010
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High-pressure density measurements for choline chloride: Urea deep eutectic solvent and its aqueous mixtures at T = (298.15 to 323.15) K and up to 50 MPa:	https://www.doi.org/10.1016/j.jct.2012.05.008
Liquid pharmaceuticals formulation by eutectic formation:	https://www.doi.org/10.1016/j.fluid.2017.05.009
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Phase equilibria of high pressure CO2 and deep eutectic solvents formed by quaternary ammonium salts and phenol:	https://www.doi.org/10.1016/j.fluid.2016.08.020
Solubilities of Three Flavonoids in Different Natural Deep Eutectic Solvents at T = (288.15 to 328.15) K:	https://www.doi.org/10.1021/acs.jced.6b00552
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Thermodynamic and Kinetic Studies of CO2 Capture by Glycol and Amine-Based Deep Eutectic Solvents:	https://www.doi.org/10.1021/acs.jced.8b00015
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Effect of lithium chloride on the density and dynamic viscosity of choline chloride/urea deep eutectic solvent in the temperature range (303.15-358.15) K:	https://www.doi.org/10.1016/j.jct.2018.10.003
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Effect of Water on the Density, Viscosity, and CO2 Solubility in Choline Chloride/Urea:	https://www.doi.org/10.1021/je500320c
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Molar Enthalpy of Mixing for Choline Chloride/Urea Deep Eutectic Solvent + Water System:	https://www.doi.org/10.1021/acs.jced.6b00569
Influence of temperature, water content and type of organic acid on the formation, stability and properties of functional natural deep eutectic solvents:	https://www.doi.org/10.1016/j.fluid.2019.01.025
Fixed Path Length Laser-Induced Sound Pinging: A Streamlined Method for Sound Speed Determination in Arbitrary Liquids:	https://www.doi.org/10.1021/acs.jced.9b00436
Solubilities of ammonia in choline chloride plus urea at (298.2-353.2) K and (0-300) kPa:	https://www.doi.org/10.1016/j.jct.2018.09.020

Legend

tf:	Normal melting (fusion) point
tt:	Triple Point Temperature