

# ILCO Ionic Lube

Ionic Liquid	ILCO Ionic Lube	Product Name	CAS No.	Molar Mass	Melting point	Viscosity at RT	Viscosity at 80 °C	Density at 80	Electrochemical window	Electric conductivity
Liquid at RT					[°C]	[mPas]	[mPas]	°C [g/cm3]	[Volt]	[µS/cm]
EMIM EtOSO <sub>3</sub>	IIL 001	1 Ethyl-3-methylimidazolium ethylsulfate	342573-75-5	236.29	<-20	122	14	1.20	-2.2/+0.8	80 (25 °C)
BMIM MeOSO <sub>3</sub>	IIL 002	1 Butyl-3-methylimidazolium methylsulfate	401788-98-5	250.32	<-20	214	19	1.17	-2.3/+1.8	20 (25 °C)
<b>Low Viscosity</b>										
EMIM SCN	ILL 003	1-Ethyl-3- methylimidazolium thiocyanate	331717-63-6	169.25	<-20	22	6	1.08	-1.8/+0.8	220 (25 °C)
BMIM SCN	ILL 004	1 Butyl-3-methylimidazolium thiocyanate	344790-87-0	197.30	<-20	54	9	1.04	-2.3/+0.7	40 (25 °C)
<b>Functionalized</b>										
COL Acetate	IIL 005	Choline Acetate	14586-35-7	163.21	85					
COL Salicylate	IIL 006	Choline salicylate	2016-36-6	221.48	36		103	1.15		
MTEOA MeOSO <sub>3</sub>	IIL 007	Tris-(2-hydroxyethyl)-methylammonium methylsulfate	29463-06-7	275.32	<-20	686	53	1.38		
<b>Basic</b>										
EMIM Acetat	IIL 008	1-Ethyl-3- methylimidazolium acetate	143314-17-4	170.22	<-20	93	10	1.07	-2.3/+0.9	2500 (25 °C)
BMIM Acetat	IIL 009	1 Butyl-3-methylimidazolium acetate	284049-75-8	198.27	<-20	554	22	1.02	-2.3/+0.8	1100 (25 °C)
<b>Standard</b>										
EMIM Cl	IIL 10	1-Ethyl-3- methylimidazolium chloride	65039-09-0	146.62	80		47	1.11		
EMIM CH <sub>3</sub> SO <sub>3</sub>	IIL 11	1-Ethyl-3- methylimidazolium methanesulfonate	145022-45-3	206.27	35	109	13	1.21	-2.1/+0.6	2600 (25 °C)
BMIM Cl	IIL 12	1-Butyl-3- methylimidazolium chloride	79917-90-1	174.67	70		147	1.05	-2.1/+0.8	30 (25 °C)
BMIM CH <sub>3</sub> SO <sub>3</sub>	IIL 13	1-Butyl-3- methylimidazolium methanesulfonate	342789-81-5	234.32	75-80		18	1.13	-1.6/>1	210 (80 °C)
MTBS	IIL 14	Methyl-tri-n-butylammonium methylsulfate	13106-24-6	311.49	62		81	1.02	-2.7/>1	2280 (125 °C)
MMMPZ MeOSO <sub>3</sub>	IIL 15	1,2,4-Trimethylpyrazolium methylsulfate	856614-13-6	222.29	33					
EMMIM EtOSO <sub>3</sub>	IIL 16	1-Ethyl-2-3- di-methylimidazolium ethylsulfate	516474-08-01	250.32	67		46	1.20	-2.2/>1	7200 (80 °C)
MMMIM MeOSO <sub>3</sub>	IIL 17	1,2,3-Trimethyl-imidazolium methylsulfate	65086-12-6	222.26	113					
<b>Acidic</b>										
HMIM Cl	IIL 18	Methylimidazolium chloride	35487-17-3	118.56	75		107	1.18	-2.2/>1	11000 (90 °C)
HMIM HSO <sub>4</sub>	IIL 19	Methylimidazolium hydrogensulfate	681281-87-8	180.18	39	923	76	1.45	-2.1/+1.7	
EMIM HSO <sub>4</sub>	IIL 20	1-Ethyl-3- methylimidazolium hydrogensulfate	412009-61-1	208.24		1650	105	1.33		
EMIM AlCl <sub>4</sub>	IIL 21	1-Ethyl-3- methylimidazolium tetrachloraluminat	80432-05-9	279.96	9	26	8	1.28		
BMIM HSO <sub>4</sub>	IIL 22	1-Butyl-3- methylimidazolium hydrogensulfate	262297-13-2	236.29	28	4320	164	1.24		
BMIM AlCl <sub>4</sub>	IIL 23	1-Butyl-3- methylimidazolium tetrachloraluminat	80432-09-3	308.01	-10	32	7	1.20	-2.1/>1	8200 (25 °C)

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