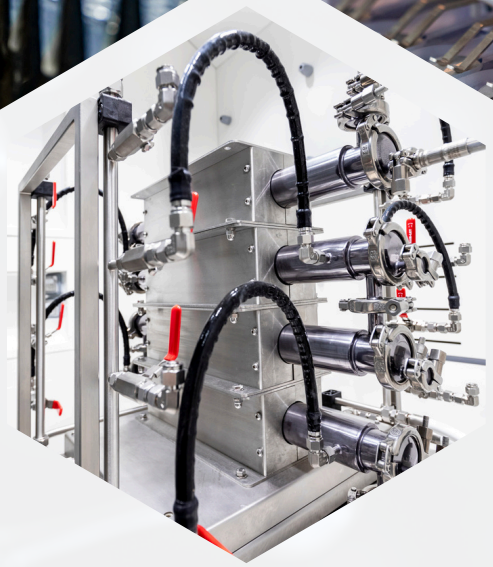
SOLVIONIC

POWERED BY INNOVATION



SURFACE TREATMENT

ENERGY STORAGE

INNOVATION

EFFICIENCY

SAFETY

CATALYSIS

PERFORMANCE

PRODUCT CATALOGUE

2026

Table of CONTENTS

Glossary

1 - Ionic Liquids Cations

N122(201)	N,N-Diethyl-N-methyl-N-(2-methoxyethyl)ammonium
Emim	1-Ethyl-3-methylimidazolium
Bmim	1-Butyl-3-methylimidazolium
PYR13	N-Methyl-N-propylpyrrolidinium
PYR14	N-Butyl-N-methylpyrrolidinium
PI13	N-Methyl-N-propylpiperidinium
PUR1(201)	N-Methyl-N-(2-methoxyethyl)pyrrolidinium
PolyDDA	Poly(diallyldimethylammonium)

2 - Ionic Liquids Anions

TFSI	Bis(trifluoromethanesulfonyl)imide
FSI	Bis(fluorosulfonyl)imide

3 - Salts

LiTFSI	Lithium bis(trifluoromethanesulfonyl)imide
LiFSI	Lithium bis(fluorosulfonyl)imide
LiPF6	Lithium hexafluorophosphate
NaFSI	Sodium bis(fluorosulfonyl)imide
NaTFSI	Sodium bis(trifluoromethanesulfonyl)imide

4 - Solvents

DEC	Diethyl carbonate
DMC	Dimethyl carbonate
EC	Ethylene carbonate
EMC	Ethyl methyl carbonate
PC	Propylene carbonate
VC	Vinylene carbonate
FEC	Fluoroethylene carbonate

About Us

Solvionic is a leading SME specializing in the advanced chemistry of **Ionic Liquids.** Our primary focus is on the **electrochemical devices market**, particularly in **energy storage**, but we also offer expertise in **surface treatment** and the development of **advanced solvents** for industrial applications. We are equipped with production facilities and strategies that ensure rapid and reliable scaling of our products to meet industrial demands.

A cornerstone of our success is our rigorous quality control procedures, specifically developed for Ionic Liquids products, which enable us to offer **the highest purity standards** in the Ionic Liquids market.

In addition to our production capabilities, Solvionic excels in the research and development of innovative materials and processes utilizing Ionic Liquids. Our main R&D efforts are dedicated to pioneering the **next generation of electrochemical energy storage systems**, including advanced metal-ion batteries and supercapacitors.

Solvionic is committed its **environmental impact** through strong Corporate Social Responsibility (CSR) initiatives. We have implemented an energy consumption monitoring system, optimizing the efficiency of our intallations and significantly reducing our energy use. Furthermore, we integrate eco-design to minimize the use of resources and waste generation, ensuring that our products remain both high-performance and environmentally friendly.

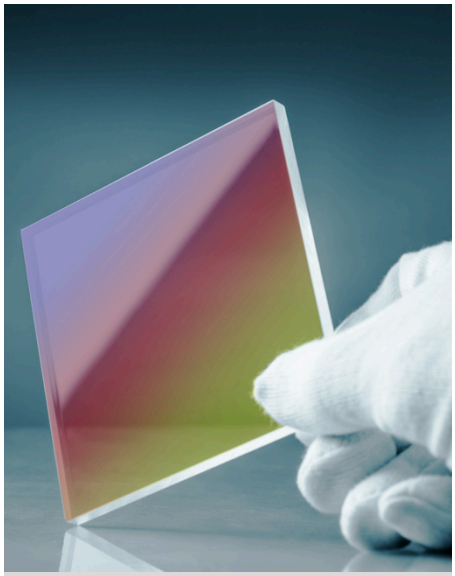
Our markets

Solutions for a variety of fields

The product families offered by Solvionic cover a wide range of needs, from energy storage applications to surface treatments.

Electrochemical devices

The electrochemical stability and conductivity properties of ionic liquids make them ideal for the development of electrolytes used in batteries and supercapacitors.



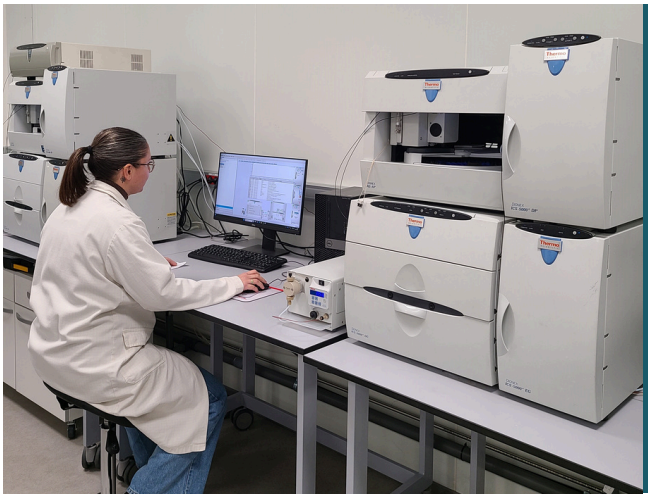
Surface finishing

Thanks to their high electrochemical stability, ionic liquids enable electrodeposition of metals that cannot be deposited in aqueous electrolytes, while reducing the environmental impact of the process.

Solvent, separation & extraction

Solvionic has patented several technologies in these fields, and provides solutions and products that can meet the needs for absorption recovery of carbon dioxide and sulfur dioxide, and the capture of these gases for depollution and then transformation.

High quality materials



QUALITY CONTROL

We use several analytical methods, such as Ionic Chromatography, CyclicVoltammetry, Conductivity, Density, Karl-Fisher (water content), Differential Scanning Calorimetry (DSC), Viscosity.

HIGH PURITY

Electrochemistry Grade 99.9% - H_2O < 20ppm - Halide < 1ppm – Amine compounds < 10ppm.

PACKAGING

Our products are packed in aluminum containers filled with argon gas (H_2O < 0.5ppm, O_2 < 0.5ppm).

Pack size: 50g to 200Kg

Ionic liquid

Ionic liquids or low-temperature molten salts represent a new class of solvents for a cleaner chemistry. Their low melting point, often below room temperature, offers significant energy savings. And unlike other solvents, they are infinitely recyclable.
Their general properties are: Non volatile; Non-flammable; Stable at high temperature; Hydrophobic or Hydrophilic; Good ionic conductors (electrolytes); Broad electrochemical range. Our production capacity can reach up to 40 tons per year.

PYR1333

N-Propyl-N-methylpyrrolidinium FSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[852620-97-4]
Molecular Weight (g/mol)	308.37
Melting point (°C)	-13
Density (g/cm³ at 20°C)	1.34

Ew* (V at 25°C)	5.8
Cond (mS/cm at 25°C)	9.3

Application
Electrochemistry, Coating, Extraction

PYR1308

N-Propyl-N-methylpyrrolidinium TFSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[223437-05-6]
Molecular Weight (g/mol)	408.40
Melting point (°C)	-11
Density (g/cm³ at 20°C)	1.42

Ew (V at 25°C)	5.9
Cond (mS/cm at 25°C)	4

Application
Electrochemistry, Coating, Extraction

PYR0433

1-Butyl-1-methylpyrrolidinium FSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[1057745-51-3]
Molecular Weight (g/mol)	322.28
Melting point (°C)	-46
Density (g/cm³ at 20°C)	1.30

Ew (V at 25°C)	5.8
Cond (mS/cm at 25°C)	6.9

Application
Electrochemistry, Coating, Extraction

PYR0408

1-Butyl-1-methylpyrrolidinium TFSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[223437-11-4]]
Molecular Weight (g/mol)	422.41
Melting point (°C)	-8
Density (g/cm³ at 20°C)	1.39

Ew (V at 25°C)	6.1
Cond (mS/cm at 25°C)	2.9

Application
Electrochemistry, Coating, Extraction

Ew : Electrochemical window

Ionic liquid

IM0233

1-Ethyl-3-methylimidazolium FSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[235789-75-0]
Molecular Weight (g/mol)	291.30
Melting point (°C)	-13
Density (g/cm³ at 20°C)	1.44

Ew* (V at 25°C)	4.2
Cond (mS/cm at 25°C)	17.7

Application
Electrochemistry, Coating, Extraction

IM0208

1-Ethyl-3-methylimidazolium TFSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[174899-82-2]
Molecular Weight (g/mol)	391.31
Melting point (°C)	-17
Density (g/cm³ at 20°C)	1.52

Ew (V at 25°C)	4.6
Cond (mS/cm at 25°C)	8.6

Application
Electrochemistry, Coating, Extraction

PYRSF1908

1-Methyl-1-(2-methoxyethyl)pyrrolidinium TFSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[757240-24-7]
Molecular Weight (g/mol)	424.38
Melting point (°C)	5
Density (g/cm³ at 25°C)	1.45

Ew (V at 25°C)	5
Cond (mS/cm at 25°C)	3.8

Application
Electrochemistry, Coating, Extraction

PYRSF1933

1-Methyl-1-(2-methoxyethyl)pyrrolidinium FSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[1235234-47-5]
Molecular Weight (g/mol)	324.36
Melting point (°C)	3
Density (g/cm³ at 25°C)	1.37

Ew (V at 25°C)	5.6
Cond (mS/cm at 25°C)	7

Application
Electrochemistry, Coating, Extraction

AM0308

N-Trimethyl-N propylammonium TFSI

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[268536-05-6]
Molecular Weight (g/mol)	382
Melting point (°C)	19
Density (g/cm³ at 25°C)	1.43

Ew (V at 25°C)	5.9
Cond (mS/cm at 25°C)	2.9

Application
Electrochemistry, Coating, Extraction

Ew : Electrochemical window

Ionic liquid

IM0203

1-Ethyl-3-methylimidazolium BF4

Quality: 99.9% ; 99.5% ; 99%

CAS Number	[143314-16-3]
Molecular Weight (g/mol)	197.97
Melting point (°C)	12
Density (g/cm³ at 20°C)	1.28

Ew* (V at 25°C)	4.2
Cond (mS/cm at 25°C)	14.9

Application
Electrochemistry, Coating, Extraction

IM0205

1-Ethyl-3-methylimidazolium TFO

Quality: 99.5% ; 99%

CAS Number	[145022-44-2]
Molecular Weight (g/mol)	260.24
Melting point (°C)	-10
Density (g/cm³ at 20°C)	1.38

Ew (V at 25°C)	4.3
Cond (mS/cm at 25°C)	9.4

Application
Electrochemistry, Coating, Extraction

IM0211

1-Ethyl-3-methylimidazolium DCA

Quality: 99.5%

CAS Number	[370865-89-7]
Molecular Weight (g/mol)	177.23
Melting point (°C)	-13
Density (g/cm³ at 25°C)	1.09

Ew (V at 25°C)	-
Cond (mS/cm at 25°C)	-

Application
Electrochemistry, Coating, Extraction

PYR0443

N-Butyl-N-methylpyrrolidinium Bis(oxalato)borate

Quality: 99.9%

CAS Number	[625835-91-8]
Molecular Weight (g/mol)	329.11
Melting point (°C)	55
Density (g/cm³ at 25°C)	N/A

Ew (V at 25°C)	N/A
Cond (mS/cm at 25°C)	N/A

Application
Electrochemistry, Coating, Extraction

PI0308

1-Methyl-1-propylpiperidinium TFSI

Quality: 99.9% ; 99.5%

CAS Number	[608140-12-1]
Molecular Weight (g/mol)	422.4
Melting point (°C)	10
Density (g/cm³ at 25°C)	1.41

Ew (V at 25°C)	6.2
Cond (mS/cm at 25°C)	1.5

Application
Electrochemistry, Coating, Extraction

Ew : Electrochemical window

Ionic liquid

PYR1103

N,N-Dimethylpyrrolidinium BF4

Quality: 99.5% ; 99%

CAS Number	[69444-51-5]
Molecular Weight (g/mol)	186.9
Melting point (°C)	-
Density (g/cm³ at 20°C)	-

Ew* (V at 25°C)	-
Cond (mS/cm at 25°C)	-

Application
Electrochemistry, Coating, Extraction

AM0333

N-Trimethyl-N-propylammonium FSI

Quality: 99.9% ; 99.5%

CAS Number	-
Molecular Weight (g/mol)	282.17
Melting point (°C)	42
Density (g/cm³ at 20°C)	N/A

Ew (V at 25°C)	N/A
Cond (mS/cm at 25°C)	N/A

Application
Electrochemistry, Coating, Extraction

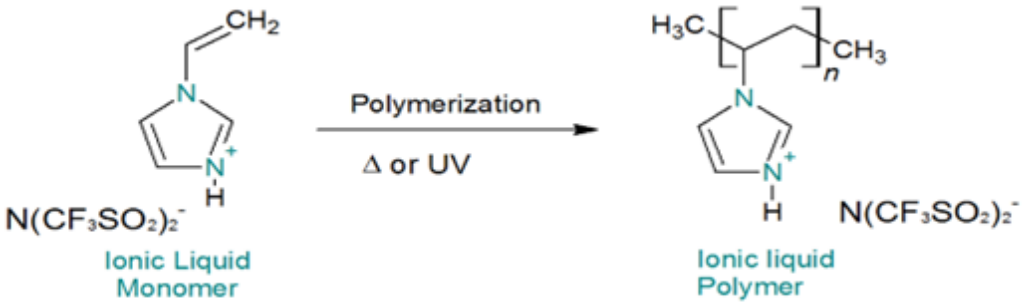
Ew : Electrochemical window

- Different quality and quantity upon request -

Monomers & Polymers

Ionic liquid monomers were developed by SOLVIONIC. They are easily used to get ion conducting polymers and materials, using thermal or UV curing.
Such ion conducting materials are used as electrode binders, polymer electrolytes (Batteries, electrochromics, etc), antistatic coatings and additives.

Custom-made: Solvionic provides customized engineering of monomer molecules as well as formulations with the monomer molecules upon request. Formulations can contain additives and/or non-flammable ionic liquids.



IMSF2933

3-Ethyl-1-vinylimidazolium FSI
Quality: 99.5%

Molecular Weight (g/mol)	303.3
H_2O content	≤ 500ppm
Halides	≤ 10ppm
Hydrophobic - Packed under nitrogen	

IMSF4208

1,4-butanediyl-3,3'-bis-1-vinylimidazolium Di-TFSI

Quality: 99.5%

Molecular Weight (g/mol)	804.6
H_2O content	≤ 500ppm
Halides	≤ 50ppm
Hydrophobic - Packed under nitrogen	

Monomers & Polymers

AM5408

Poly(diallyldimethylammonium) TFSI
Quality: 99.5%

Molecular Weight (g/mol)	500 000 - 880 000
H_2O content	≤ 20ppm
Halides	≤ 20 ppm
Hydrophobic - Packed under nitrogen	

AM5433

Poly(diallyldimethylammonium) FSI
Quality: 99.5%

Molecular Weight (g/mol)	380 000 - 660 000
H_2O content	≤ 20ppm
Halides	≤ 20ppm
Hydrophobic - Packed under nitrogen	

AMSF2908

N,N,N,N-butyldimethylmethacryloyloxyethylammonium TFSI
Quality: 99.5%

Molecular Weight (g/mol)	494.3
H_2O content	≤ 500ppm
Halides	≤ 50ppm
Hydrophobic - Packed under nitrogen	

IMSF2908

3-Ethyl-1-Vinylimidazolium TFSI
Quality: 99.5%

Molecular Weight (g/mol)	403.4
H_2O content	≤ 500ppm
Halides	≤ 50ppm
Hydrophobic - Packed under nitrogen	

M0369

Lithium polyacrylate
Quality: 99%

Molecular Weight (g/mol)	250 000
H_2O content	≤ 500ppm
Halides	≤ 20ppm
Hydrophobic - Packed under nitrogen	

- Different quality and quantity upon request -

Metallic salts

Solvionic develops and produces metallic salts intended for the applications of **electrodeposition**, **energy storage** and **catalysis**. These salts are essential for electrochemical processes, such as coating metal surfaces or enhancing the performance of energy storage devices. They also play a key role in chemical reactions, especially in industrial or energy-related processes.

For energy storage, these salts contribute to the formulation of **safe** and **high-performance electrolytes**, which are crucial for the development of next-generation batteries. Their role extends beyond simple materials, as Solvionic ensures that each metallic salt is synthesized to the highest purity standards, optimizing performance and reliability across diverse applications. Our production capacity can reach up to 40 tons per year.

M0333

Lithium (I) FSI
Quality: 99.9%

CAS Number	[171611-11-3]
Synonym	$LiF_2NO_4S_2$
Molecular Weight (g/mol)	187,07
H_2O content	≤ 20ppm

S001

Lithium (I) TFSI
Quality: 99.9%

CAS Number	[90076-65-6]
Synonym	$LiC_2F_6NO_4S_2$
Molecular Weight (g/mol)	287.1
Extra dry H_2O content	≤ 20ppm

M1208

Magnesium(II) TFSI
Quality: 99%

CAS Number	[133395-16-1]
Synonym	$Mg(C_2F_6NO_4S_2)_2$
Molecular Weight (g/mol)	584,59
H_2O content	≤ 250ppm

Metallic salts

M1908

Potassium(I) TFSI

Quality: 99%

CAS Number	[90076-67-8]
Synonym	$KC_2F_6NO_4S_2$
Molecular Weight (g/mol)	319,14
H_2O content	≤ 250ppm

M3008

Zinc(II) TFSI

Quality: 99.5%

CAS Number	[168106-25-0]
Synonym	$Zn(C_2F_6NO_4S_2)_2$
Molecular Weight (g/mol)	625,68
H_2O content	≤ 100ppm

M1205

Magnesium(II) TFO

Quality: 99%

CAS Number	[60871-83-2]
Synonym	$Mg(CF_3SO_3)_2$
Molecular Weight (g/mol)	322,44
H_2O content	≤ 250ppm

M1905

Potassium(I) TFO

Quality: 99%

CAS Number	[2926-27-4]
Synonym	KCF_3SO_3
Molecular Weight (g/mol)	188.07
H_2O content	≤ 250ppm

M1108

Na(I) TFSI

Quality: 99.5%

CAS Number	[91742-21-1]
Synonym	$NaC_2F_6NO_4S_2$
Molecular Weight (g/mol)	303.13
H_2O content	≤ 20ppm

Metallic salts

M1133

Na(I) FSI
Quality: 99.9%

CAS Number	[100669-96-3]
Synonym	$NaNS_2O_4F_2$
Molecular Weight (g/mol)	203.3
H_2O content	≤ 20ppm

M2008

Ca(II) TFSI
Quality: 99.5%

CAS Number	[165324-09-4]
Synonym	$Ca(C_2F_6NO_4S_2)_2$
Molecular Weight (g/mol)	600.38
H_2O content	≤ 250ppm

M4708

Ag(I) TFSI
Quality: 99.5%

CAS Number	[189114-61-2]
Synonym	$AgC_2F_6NO_4S_2$
Molecular Weight (g/mol)	388
H_2O content	≤ 20ppm

References:

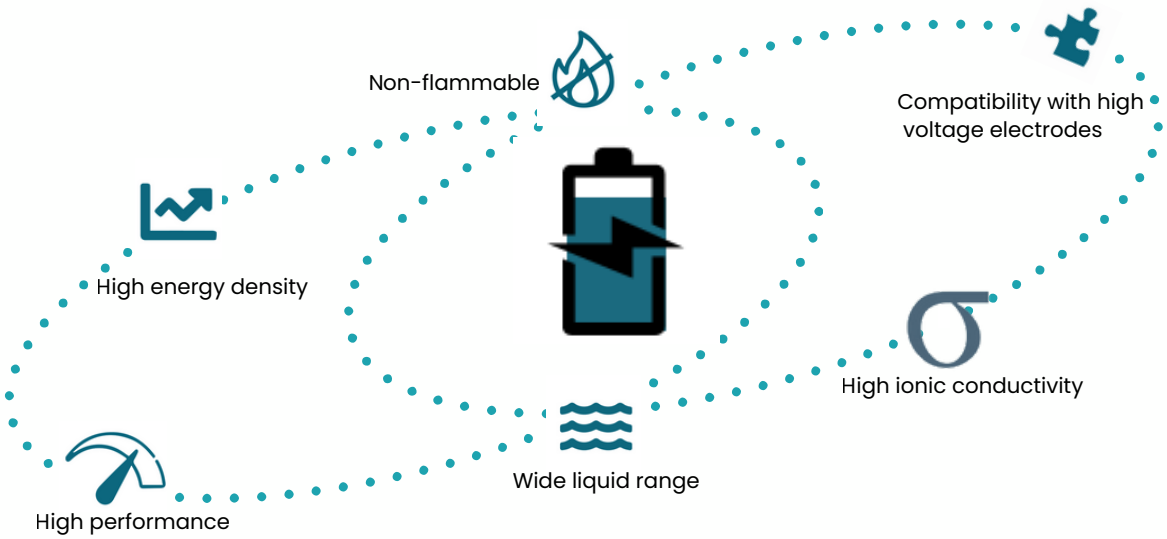
Wagner et al., 'Counterintuitive Role of Magnesium Salts as Effective Electrolyte Additives for High Voltage Lithium-Ion Batteries', Advanced Material Interfaces, 2016, p1600096
Senguttuvan et al., 'A High Power Rechargeable Nonaqueous Multivalent Zn/V2O5 Battery', Advanced Energy Materials, 2016, p1600826

- Different quality and quantity upon request -

Ionic Liquid Electrolytes

Beneficial properties of ionic liquid electrolytes

Advantages of ionic liquid electrolytes



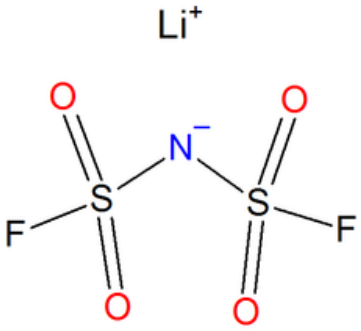
Better product quality
Better device performances

- The electrolyte's **wide stability range** allows devices to operate at significantly **higher voltages** compared to State of the Art (SoA) electrolytes, resulting in enhanced energy density.
- The ionic conductivity and Li^+ transference number are similar to SoA liquid electrolytes, offering good Li^+ transport properties.
- Operate over a **wide temperature range**, spanning from low to high temperatures, making them suitable for a variety of applications.
- **Non-flammable** electrolytes, reducing the risk of battery thermal runaway.

Ionic Liquid Electrolytes

Properties of ionic liquids perfectly fit the electrochemistry field. Solvionic has developed non-flammable electrolytes for batteries, supercapacitors, electrochromics and other electrochemical devices. Our production capacity is scaled up to 40 tons per year, while still offering a wide range of small quantities for research and development.

Lithium ion batteries



Li FSI based formulations

E260 — **LiFSI:PYR13 FSI (1:9 mol ratio)**

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	6.9
Density (g/cm³ at 20°C)	1.36

E261 — **LiFSI:PYR14 FSI (1:9 mol ratio)**

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	5.0
Density (g/cm³ at 20°C)	1.33

E262 — **LiFSI:Emim FSI (1:9 mol ratio)**

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	14.5
Density (g/cm³ at 20°C)	1.46

E266 — **LiFSI:PYR13 FSI (2:3 mol ratio)**

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	2.3
Density (g/cm³ at 20°C)	1.48

Packed under argon

Ionic Liquid Electrolytes

E267 — LiFSI:PYR14 FSI (2:3 mol ratio)

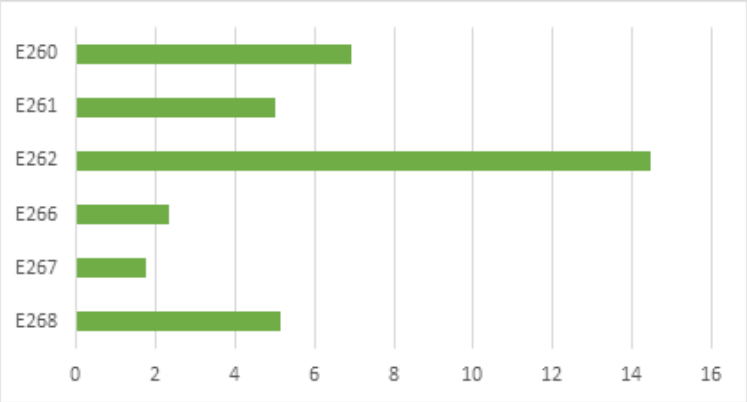
Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	1.7
Density (g/cm³ at 20°C)	1.45

E268 — LiFSI:Emim FSI (2:3 mol ratio)

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	5.1
Density (g/cm³ at 20°C)	1.57

Packed under argon
Customized electrolyte
BULK packaging or specific needs, please contact us.

Conductivity (mS/cm) at 25°C:



LiFSI salt based Electrolytes

References:

Akihiko Sagara et al, "High-Rate Performance Solid-State Lithium Batteries with Silica-Gel Solid Nanocomposite Electrolytes using Bis(fluorosulfonyl)imide-Based Ionic Liquid" J. Electrochem. Soc. 167 070549 (2020).

Piper, D. et al.," Stable silicon-ionic liquid interface for next-generation lithium-ion batteries", Nat Commun 6, 6230 (2015).

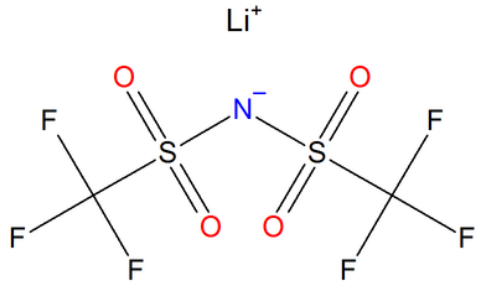
G. B. Appetecchi, "Ionic Liquid-Based Electrolytes for High Energy, Safer Lithium Batteries", In Ionic Liquids: Science and Applications; Visser, A., et al.; ACS Symposium Series; ACS: Washington, DC, 2012.

Hong-Bo Han et Al., "Lithium bis(fluorosulfonyl)imide (LiFSI) as conducting salt for nonaqueous liquid electrolytes for lithium-ion batteries: Physicochemical and electrochemical properties", Journal of Power Sources, 2011, 196, 3623.

- Different quality and quantity upon request -

Ionic Liquid Electrolytes

Li TFSI based formulations



E049 — LiTFSI:PYR13 FSI (1:9 mol ratio)

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	6.5
Density (g/cm³ at 20°C)	1.37

E178 — LiTFSI:PYR13 FSI (1:9 mol ratio) + 5%wt. VC + 5%wt. FEC

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	8.5
Density (g/cm³ at 20°C)	1.38

E046 — LiTFSI:PYR13 TFSI (1:9 mol ratio)

Packaging	50g to 200kg
Cond (mS/cm at 25°C)	2.6
Density (g/cm³ at 20°C)	1.45

E179 — LiTFSI:PYR13 TFSI (1:9 mol ratio) + 5%wt. VC + 5%wt. FEC

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	4.9
Density (g/cm³ at 20°C)	1.45

E078 — LiTFSI:PYR14 FSI (1:9 mol ratio)

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	4.5
Density (g/cm³ at 20°C)	1.34

Packed under argon

Ionic Liquid Electrolytes

E079

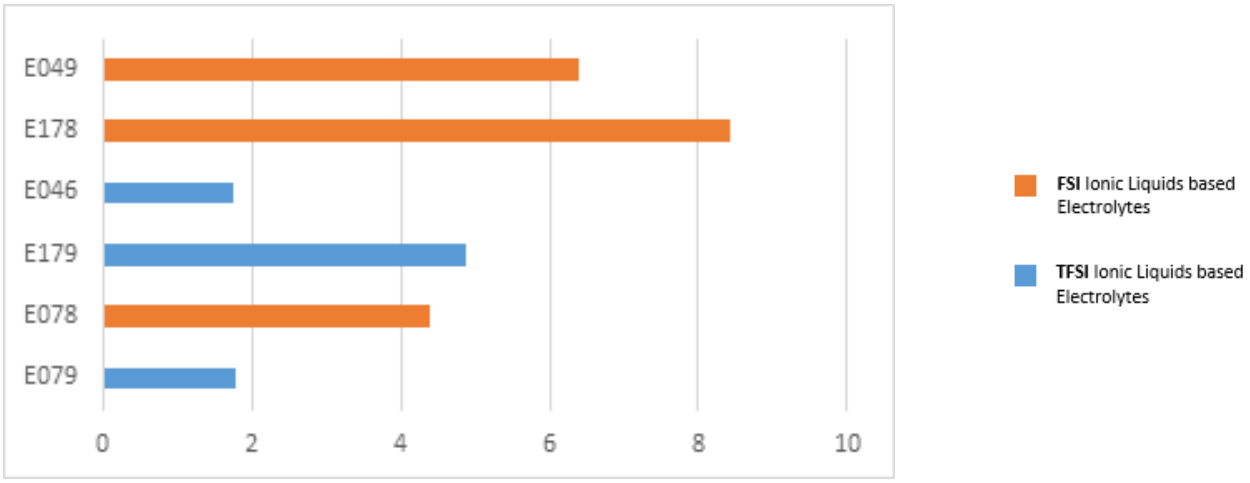
LiTFSI:PYR14 TFSI (1:9 mol ratio)

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	1.8
Density (g/cm³ at 20°C)	1.41

Packed under argon
Customized electrolyte
BULK packaging or specific needs, please contact us.

Additives: The nature of additives is optional and depends on the active materials used in the system whereas in some cases, additives are imperative when graphite is being used as anodes.

Conductivity (mS/cm) at 25°C:



References:

M. Moreno et al., 'Ionic Liquid Electrolytes for Safer Lithium Batteries', Journal of The Electrochemical Society, 2017, 164, A6026-A6031

Elia et al., 'Exceptional long-life performance of lithium-ion batteries using ionic liquid-based electrolytes', Energy & Environmental Science, 2016, 9, 3210-3220

Kim et al., 'Development of ionic liquid-based lithium battery prototypes', Journal of Power Sources, 2013, 199, p239-246

Sun et al., 'Electrochemical investigations of ionic liquids with vinylene carbonate for applications in rechargeable lithium ion batteries', Electrochimica Acta, 2010, 55, 4618–4626

Appetecchi et al., 'Lithium insertion in graphite from ternary ionic liquid-lithium salt electrolytes', Journal of Power Sources, 2009, 192, p599-605

- Different quality and quantity upon request -

Hybrid electrolytes

Non-flammable, safe and powerful electrolytes for Li-ion batteries can be obtained by adding ionic liquids into conventional electrolytes. This slightly increases their flash point and reduces their self-extinguishing time down to 15s.g-1 (40wt% addition, flame-retarded) or 0s.g-1 (50wt% addition, non-flammable). This promotes safer conditions for transport and industrial handling compared to pure organic solvents based electrolytes.

E014 — Emim TFSI 40% wt. in [1M LiPF6 in EC:DEC (1:1 vol.%)]

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	11.4
Density (g/cm³ at 20°C)	1.34

E015 — Emim FSI 40% wt. in [1M LiPF6 in EC:DEC (1:1 vol.%)]

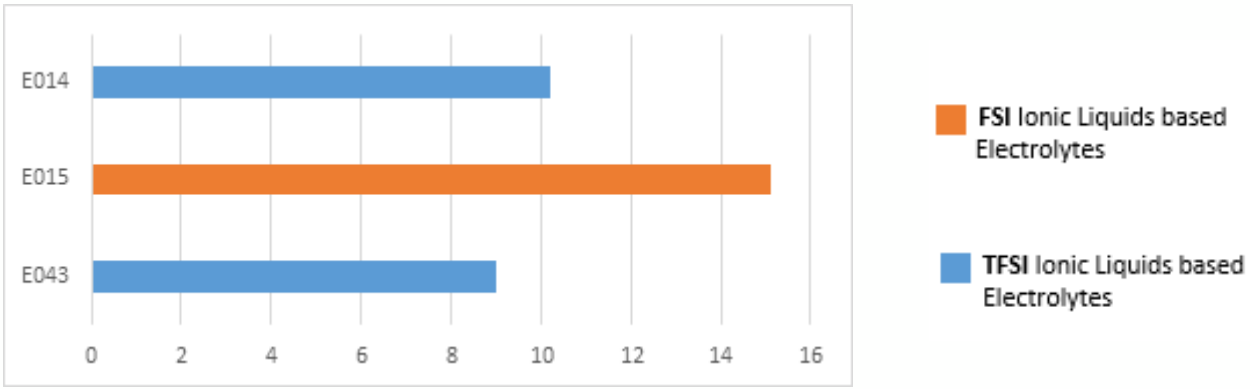
Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	15.2
Density (g/cm³ at 20°C)	1.32

E043 — PYR13 TFSI 40% wt. in [1M LiPF6 in EC:DEC (1:1 vol.%)]

Packaging	50g to 200Kg
Cond (mS/cm at 25°C)	9.1
Density (g/cm³ at 20°C)	1.31

Packed under argon
Customized electrolyte
BULK packaging or specific needs, please contact us.

Conductivity (mS/cm) at 25°C:



References:

Hess et al., 'Flammability of Li-Ion Battery Electrolytes: Flash Point and Self-Extinguishing Time Measurements', Journal of The Electrochemical Society, 2015, 162, A3084-A3097
Guerfi et al., 'Improved electrolytes for Li-ion batteries: Mixtures of ionic liquid and organic electrolyte with enhanced safety and electrochemical performance', Journal of Power Sources, 2010, 195, 845–852

- Different quality and quantity upon request -

Solviolyte®

Solviolyte® is Solvionic's premium range of ready-to-use electrolytes, formulated with **ultra-pure FSI-based ionic liquids**. Tailored for electrochemical systems, these non-flammable formulations offer an **excellent combination of high energy density, safety, and long-term reliability**.

Their use enhances cell and battery pack **safety** across the full lifecycle—from manufacturing and handling to storage and end-of-life.

When paired with TOPSOE's LNMO cathodes, Solviolyte® delivers a robust, **high-voltage solution for next-generation Li-ion batteries**, pushing the limits of current technologies.

SOLVIOLYTE® E623

3M LiFSI in N1113 FSI

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.53
Cond (mS/cm at 25°C)	1.1
Viscosity (mPa.s at 25°C)	317.8

SOLVIOLYTE® E624

3M LiFSI in N1113 FSI + proprietary additive

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.53
Cond (mS/cm at 25°C)	1.2
Viscosity (mPa.s at 25°C)	351.2

SOLVIOLYTE® E625

1.5M LiFSI in PYR13 FSI + proprietary additive

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.43
Viscosity (mPa.s at 25°C)	108.6
Cond (mS/cm at 25°C)	3.2

Solviolyte®

SOLVIOLYTE® E626

1M LiFSI in PYR13 FSI + proprietary additive

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.40
Viscosity (mPa.s at 25°C)	76.7
Cond (mS/cm at 25°C)	4.3

SOLVIOLYTE® E627

3M LiFSI in PYR13 FSI + proprietary additive

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.53
Viscosity (mPa.s at 25°C)	374.2
Cond (mS/cm at 25°C)	1.0

SOLVIOLYTE® E628

2M LiFSI in N1114 FSI

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.43
Viscosity (mPa.s at 25°C)	202.1
Cond (mS/cm at 25°C)	1.5

SOLVIOLYTE® E629

2M LiFSI in PYR13 FSI

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.47
Viscosity (mPa.s at 25°C)	141.7
Cond (mS/cm at 25°C)	2.4

Solviolyte®

SOLVIOLYTE® E726

2M LiFSI in EMIM FSI + proprietary additive

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	-
Viscosity (mPa.s at 25°C)	-
Cond (mS/cm at 25°C)	5.96

SOLVIOLYTE® E746

2M LiFSI in N1113 FSI

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.46
Viscosity (mPa.s at 25°C)	143.3
Cond (mS/cm at 25°C)	-

SOLVIOLYTE® E747

2M LiFSI in EMIM FSI

Packaging **Packed under argon**	50g to 200Kg
Density (g/cm³ at 25°C)	1.55
Viscosity (mPa.s at 25°C)	57.5
Cond (mS/cm at 25°C)	6.7

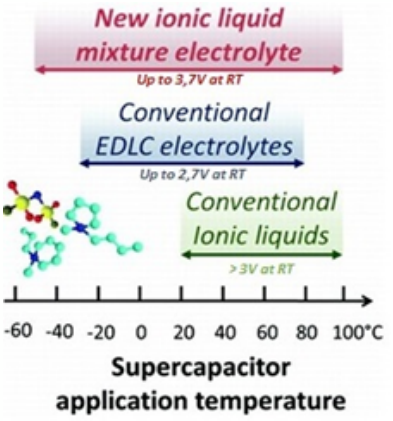
- Different quality and quantity upon request -

Supercapacitors

Eutectic mixtures

Solvionic has demonstrated that these eutectic mixtures allow capacitive energy storage from -50 to 100 °C [1].

These eutectic mixtures have a wide stable liquidus temperature range from -80°C to 120°C. Applications in various types of electrodes have been shown [2,3,4]. Results have shown good capacity with maximum voltage range of 3.3 to 3.7V, when cycled at 100°C and 20°C respectively.



E027 — PI13 FSI:PYR14 FSI (1:1 wt.%)

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	5.1
Density (g/cm³ at 25°C)	1.31

E076 — PI13 TFSI:PYR14 TFSI (1:1 wt.%)

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	2.3
Density (g/cm³ at 25°C)	1.39

E780 — EMIm FSI:EMIm BF4 1:1 (mol.)

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	-
Density (g/cm³ at 25°C)	-

Organic solvents based electrolytes

E759 — 1M TEABF4 (Tetraethylammonium tetrafluoroborate) in PC

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	-
Density (g/cm³ at 25°C)	-

Supercapacitors

E760 — 1M TEABF4 (Tetraethylammonium tetrafluoroborate) in ACN

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	-
Density (g/cm³ at 25°C)	-

E778 — 1M PYR11 BF4 in ACN

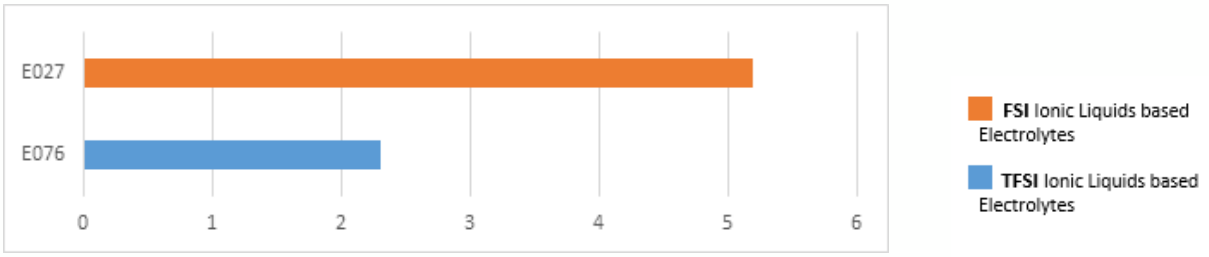
Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	48,7
Density (g/cm³ at 25°C)	0,85

E779 — 1M PYR13 BF4 in ACN

Packaging	10g to 200Kg
Packed under argon	
Cond (mS/cm at 25°C)	30,1
Density (g/cm³ at 25°C)	0.81

Customized electrolyte
BULK packaging or specific needs, please contact us.

Conductivity (mS/cm) at 25°C:



References:

[1] R. Lin et al. , Capacitive energy storage from- 50 to 100 °C using an ionic liquid electrolyte, The Journal of Physical Chemistry Letters, 2011, 2 (19), 2396–2401
[2] R. Lin et al., Outstanding performance of activated graphene based supercapacitors in ionic liquid electrolyte from- 50 to 80 °C, Nano Energy, 2013, 2 (3), 403-411
[3] Huang et al., On-chip micro-supercapacitors for operation in a wide temperature range, Electrochemistry Communications, 2013, 36, 53-56
[4] Lecoeur et al., Self-standing electrochemical double layer capacitors for operation in severe temperature conditions, Materials for Renewable and Sustainable Energy, 2013, 2 (2) 13

Solid Polymer Electrolytes

Solid Polymer Electrolytes (SPE) for solid-state batteries (SSB) typically suffer from low ionic conductivity and low oxidative stability. Herein, a **polymer ionic liquid electrolyte** offers simultaneously a high room temperature **ionic conductivity of 0.8 ms/cm** and a **high oxidative stability up to 5.0 V.**

Advantages

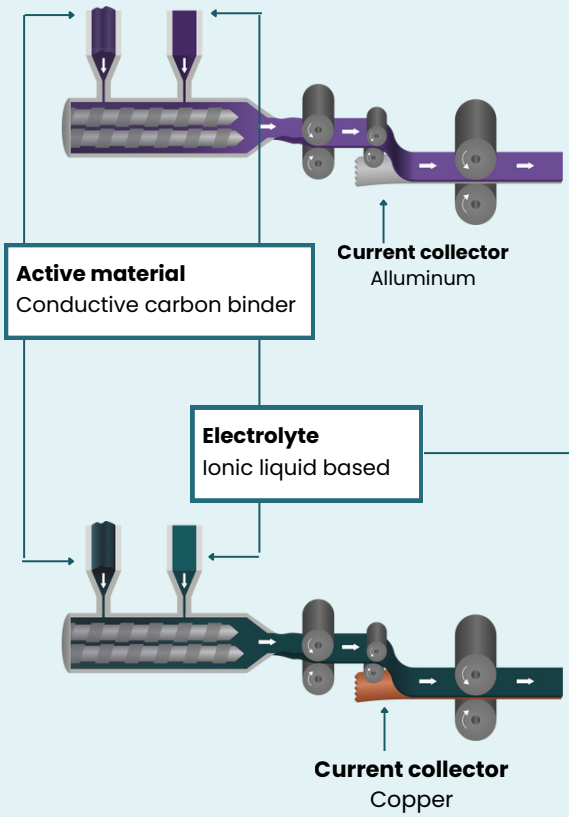
More energy, longer battery life

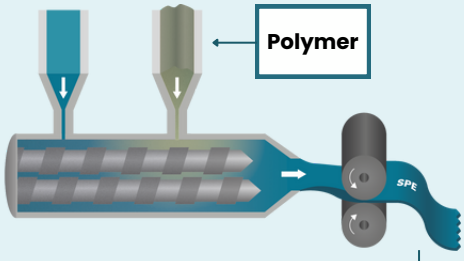
Safer and sustainable technology

Quick and efficient production line

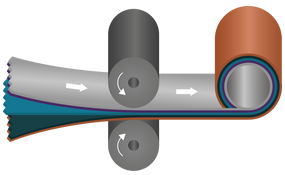
Thermal management cost reduction

Eco Smart solvent free: 30% energy saving

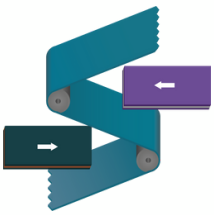




Solid Polymer Electrolyte



Cylindrical



Prismatic and pouch cell

Solid Polymer Electrolytes

SPE

- **High energy density >450 Wh/ kg and >1200 Wh/L**
- **σ = 10-³ S.cm-¹ and tLi+=0.7 at room temperature**
- **Non-flammable and thermal stability stability**
- **Compatibility with high voltage systems (up to 5.0 V)**
  NMC811, LNMO, Si-C, Li Metal

Developed by SOLVIONIC, these advanced formulations are designed to be processed into flexible, transparent, and self-supporting polymer electrolytes, using techniques such as casting or dip-coating. They offer an ideal balance of performance, versatility, and ease of integration for next-generation electrochemical devices.

We can produce customized electrolyte using :

XM of **Salt** in Pyr14FSI + PolyDDATFSI (**proportions**) in **%Solvent**

- **Salt**: **LiFSI** Or **LiTFSI**
- **proportions**: **Ex :** **60 :40**, **70 :30**, **50 :50**, **40 :60**
- **%Solvent**: **Acetone**, **Butanone**, **Acetonitrile**, **Propylene carbonate**

EM005

[LiTFSI:PYR14TFSI 1:9 (mol.)] : PolyDDA TFSI 42:58 (wt.), 50% acetone

Extra dry H_2O content	≤ 20ppm
Packaging	50g to 200Kg
Packed under argon	

EM015

[ZnTFSI:PYR14FSI 1:9 (mol.)] : PolyDDA FSI 42:58 (wt.),50% acetone

Extra dry H_2O content	≤ 100ppm
Packaging	50g to 200Kg
Packed under argon	

Solid Polymer Electrolytes

EM022

[LiFSI:PYR14FSI 1:9 (mol.)]:PolyDDA FSI 42:58 (wt.),50% acetonitrile

Packaging 50g to 200Kg
Packed under argon

EM038

[3M LiTFSI in PYR13TFSI]:PolyDDA FSI 60:40 (wt.),50wt% in acétonitrile

Packaging 50g to 200Kg
Packed under argon

EM039

[3M LiTFSI in PYR13TFSI]:PolyDDA TFSI 60:40 (wt.)50wt% in acétonitrile

Packaging 50g to 200Kg
Packed under argon

Customized electrolyte
BULK packaging or specific needs, please contact us.

References:

MacFarlane et al., 'Energy applications of ionic liquids', Energy Environ. Sci., 2014, 7, 232
G.B. Appetecchi et al., 'Ternary polymer electrolytes containing pyrrolidinium-based polymeric ionic liquids for lithium batteries' Journal of Power Sources, 2010, 195, p3668

- Different quality and quantity upon request -

SOLVIONIC

POWERED BY INNOVATION

11 Chemin des Silos

31100 Toulouse - France

Tel. : **+33 (0)5 32 26 20 20** - Email : **sales@solvionic.com**

solvionic.com

For more information on electrolytes and energy storage, visit our website solvionic-energy.com