# 1-Ethyl-3-methyl imidazolium bis(fluorosulfonyl)imide



## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

| | |
|---|---|
| **Identification of the substance** | **1-Ethyl-3-methyl imidazolium bis(fluorosulfonyl)imide** |
| **Registration number (REACH)** | unavailable |
| **EC number** | 825-567-9 |
| **CAS number** | 235789-75-0 |
| **Reference number (ECHA)** | 02-2120807989-35-0000 |
| **Alternative name(s)** | EMIM FSI |
| **Alternative number(s)** | 00136.1000, 00136.7000 |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

| | |
|---|---|
| **Relevant identified uses** | Battery fluid<br>Product and process oriented research and development |
| **Uses advised against** | Do not use for private purposes (household). |
| **HS code** | 29332990 |

### 1.3 Details of the supplier of the safety data sheet

**proionic GmbH**
**Parkring 18, Trakt H/1**
**A-8074 Raaba-Grambach**
**Austria**

**Telephone: +43 (0) 316 4009-4200**
**e-mail: proionic.office@arkema.com**
**Website: www.proionic.com**

### 1.4 Emergency telephone number

| | |
|---|---|
| **Emergency information service** | Austria<br>This number is only available during the following office hours<br>Mo-fr 8am-4pm (CET): +43 (0) 316/ 4009- 4200 |
| **Official advisory body** | Poisoning information center Austria: +43 (0) 1 406 43 43 |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Research chemical - research sample.
Caution! Substance not yet fully tested.

### Classification according to Regulation (EC) No 1272/2008 (CLP)

Self-classification. The classification is based on data of the tested substance as well as on conclusions by analogy.

| Section | Hazard class | Cat-egory | Hazard class and category | Hazard statement |
|---|---|---|---|---|
| 3.1O | acute toxicity (oral) | 4 | Acute Tox. 4 | H302 |

For full text of abbreviations: see SECTION 16.

### Additional information

None.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

**- signal word** warning

**- pictograms**

**GHS07**

**- hazard statements**

**H302** Harmful if swallowed.

**- precautionary statements**

**P264** Wash thoroughly after handling.
**P270** Do not eat, drink or smoke when using this product.
**P301+P312** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
**P330** Rinse mouth.
**P501** Dispose of contents/container to industrial combustion plant.

## 2.3 Other hazards

There is no additional information.

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

**Name of substance** 1-Ethyl-3-methyl imidazolium bis(fluorosulfonyl)imide

**Identifiers**

**CAS No** 235789-75-0

**EC No** 825-567-9

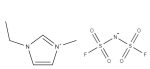
**Purity** <99,9 %

| ATE | Exposure route |
|---|---|
| 500 $^{mg}/_{kg}$ | oral |

**Molecular formula** C6H11N3O4S2

**Molar mass** 291,3 $^{g}/_{mol}$

**Structural formula**



## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

#### Following skin contact

Wash with plenty of soap and water. If skin irritation occurs, consult a doctor.

#### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor.

#### Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Consult a doctor.

### 4.2 Most important symptoms and effects, both acute and delayed

See SECTION 2.

### 4.3 Indication of any immediate medical attention and special treatment needed

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

#### Unsuitable extinguishing media

Water jet

### 5.2

#### Hazardous combustion products

May produce toxic fumes
Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2), Sulphur oxides (SOx)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Remove persons to safety.

#### For emergency responders

Wear protective equipment and avoid any contact (skin, eyes).

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

### 6.3 Methods and material for containment and cleaning up

#### Advice on how to contain a spill

Covering of drains

#### Advice on how to clean up a spill

Collect spillage. Wipe up with absorbent material (e.g. cloth, fleece). Use isopropanol/ethanol to clean surfaces.

#### Appropriate containment techniques

Use of adsorbent materials.

#### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Recommendations

Contaminated surfaces must not be cleaned with compressed air due to the possible formation of aerosols. Use only in well-ventilated areas. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**- specific notes/details**

Avoid contact with skin and eyes.

#### Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep cool. Protect from sunlight. Keep container in a well-ventilated place.

### 7.3 Specific end use(s)

See SECTION 1.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

These information are not available.

### 8.2 Exposure controls

#### Appropriate engineering controls

General ventilation.

#### Individual protection measures (personal protective equipment)

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Eye/face protection

Wear eye/face protection.

### Skin protection

**- hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In case of re-use of the gloves - clean it thoroughly before take off and air it well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**- other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

### Body protection

Protective clothing against liquid chemicals.

### Respiratory protection

Respiratory protection not required.

### Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **Physical state** | liquid |
| | colourless |
| **Odour** | characteristic |
| **Melting point** | -13 °C |
| **Boiling point or initial boiling point and boiling range** | not determined |
| **Lower and upper explosion limit** | not determined |
| **Flash point** | not determined |
| **Auto-ignition temperature** | not determined |
| **Decomposition temperature** | 314 °C (Tonset) [30°C/5(K/min)] |
| **pH (value)** | not determined |
| **Solubility(ies)** | not determined |

### Partition coefficient

| | |
|---|---|
| **Partition coefficient n-octanol/water (log value)** | not determined |

| | |
|---|---|
| **Vapour pressure** | not determined |

### Density and/or relative density

| | |
|---|---|
| **Density** | 1,44 $^{g}/_{cm^3}$ at 20 °C |
| **Relative vapour density** | information on this property is not available |

| | |
|---|---|
| **Particle characteristics** | not relevant (liquid) |

| | |
|---|---|
| **Information with regard to physical hazard classes** | hazard classes acc. to GHS (physical hazards): not relevant |

### Other safety characteristics

| | |
|---|---|
| **Refractive index** | 1,448 (wavelength: 589 nm, 20 °C) |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity
This material is not reactive under normal ambient conditions.

### 10.2 Chemical stability
Chemically stable.

### 10.4 Conditions to avoid
Please keep away from acids.

### 10.5 Incompatible materials
Not known

### 10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Research chemical - research sample.

### Classification according to GHS (1272/2008/EC, CLP)
Substance not yet fully tested. Self-classification.

### Acute toxicity
Harmful if swallowed.

**- classification procedure**
The classification for toxicity is based on tested substance. OECD 423.

| Exposure route | Endpoint | Value | Species |
|---|---|---|---|
| oral | LD50 | 500 $^{mg}/_{kg}$ | rat |

### Skin corrosion/irritation
No data available.

### Serious eye damage/eye irritation
No data available.

### Respiratory or skin sensitisation
No data available.

### Germ cell mutagenicity
No data available.

### Carcinogenicity
No data available.

### Reproductive toxicity
No data available.

### Specific target organ toxicity - single exposure
No data available.

### Specific target organ toxicity - repeated exposure
No data available.

### Aspiration hazard
No data available.

### 11.2 Information on other hazards
There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity
All information refers to analogy circuits.
Not readily biodegradable.

### Aquatic toxicity (acute)
No data available.

### 12.2 Persistence and degradability
Data are not available.

### 12.3 Bioaccumulative potential
Data are not available.

### 12.4 Mobility in soil
Data are not available.

### 12.5 Results of PBT and vPvB assessment
Data are not available.

### 12.6 Endocrine disrupting properties
Information on this property is not available.

### 12.7 Other adverse effects

Data are not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Waste treatment-relevant information

Incineration. Residues and used material have to be disposed to an authorized waste treatment facility.

#### Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment.

#### Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

| | | |
|---|---|---|
| **14.1** | **UN number or ID number** | Not required |
| **14.2** | **UN proper shipping name** | not relevant |
| **14.3** | **Transport hazard class(es)** | None |
| **14.4** | **Packing group** | Not assigned |
| **14.5** | **Environmental hazards** | Non-environmentally hazardous acc. to the dangerous goods regulations |

### 14.6 Special precautions for user

There is no additional information.

### 14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

#### Information for each of the UN Model Regulations

#### Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - additional information

Not subject to ADR, RID and ADN.

#### International Maritime Dangerous Goods Code (IMDG) - additional information

Not subject to IMDG.

#### International Civil Aviation Organization (ICAO-IATA/DGR) - additional information

Not subject to ICAO-IATA.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

There is no additional information.

#### List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

not relevant

Substance is listed in the following national inventories:
TCSI (Taiwan)
VNECI (Vietnam)
C&L Inventory (Europe)

### 15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|---|---|
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road) |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| HS | Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation) |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| LD50 | Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval |
| NLP | No-Longer Polymer |
| PBT | Persistent, Bioaccumulative and Toxic |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| SVHC | Substance of Very High Concern |
| vPvB | Very Persistent and very Bioaccumulative |

### Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.
Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

## Classification procedure

Self-classification.
The classification is based on data of the tested substance as well as on conclusions by analogy.

## List of relevant phrases

| Code | Text |
|---|---|
| H302 | Harmful if swallowed. |

## Disclaimer

The data contained in this safety data sheet are based on the current knowledge and experience of proionic GmbH and do not purport to be all inclusive. The safety data sheet shall be used only as a guide. The data do not describe the products properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose, except as mentioned, be deduced from the data contained in this safety data sheet. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.
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