

Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)

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

Version number: GHS 3.0

Date of compilation: 23.10.2019
First version: Date of issue: 02.04.2019

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
Alternative name(s)	EMIM FSI
Alternative number(s)	00136.1000

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

Relevant identified uses	Battery fluid Product and process orientated research and development
Uses advised against	Do not use for private purposes (household).

1.3 Details of the supplier of the safety data sheet

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e-mail: office@proionic.com
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Lieferant / Supplier:
Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
76185 Karlsruhe, Germany
+49 721 5606 0
sicherheit@carlroth.de

1.4 Emergency telephone number

Emergency information service	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

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

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

Self-classification. All information refers to analogy circuits.

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302

For full text of abbreviations: see SECTION 16.

Additional information

There are no available test data for this substance.

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- signal word warning

- pictograms

GHS07



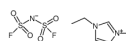
- hazard statements

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****EC No** 825-567-9**Purity** ≥98 %**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. Call a physician in any case.

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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. Call a physician immediately.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a physician in any case.

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 (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂), Phosphorus oxides (P_xO_y), Sulphur oxides (SO_x)

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 for cleaning surfaces isopropanol / ethanol.

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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. 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.

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- other protection measures

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

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

Appearance

Physical state	liquid
Colour	colourless
Odour	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	-13 °C
Initial boiling point and boiling range	not determined
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Explosive limits	not determined
Vapour pressure	not determined
Density	1,39 g/cm ³ at 25 °C
Vapour density	this information is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
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Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidising properties	none

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

Chemically stable.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

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 toxicological effects

Research chemical - research sample.

Classification according to GHS (1272/2008/EC, CLP)

Substance not yet fully tested. Self-classification.

Acute toxicity

No data available.
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

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant. No data available.

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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.

SECTION 12: Ecological information

12.1 Toxicity

All information refers to analogy circuits.

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 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.

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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

14.2 Shipping name

not relevant

14.3 Transport hazard class(es)

none

14.4 Packing group

not assigned to a packing group

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 Transport in bulk according to Annex II of MARPOL and the IBC Code

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)

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR)

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Regulations should not be applied.

15.2 Chemical Safety Assessment

For this substance NO chemical safety assesment has been carried out.

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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 européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
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
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
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
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)
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 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.

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