

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 29.01.2024

Version number 5 (replaces version 4)

Revision: 29.01.2024

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

**1.1 Product identifier**

**Trade name:** 1-Ethyl-3-methylimidazolium tetrafluoroborate 99,5%

**Article number:** IM0203B

**CAS Number:**

143314-16-3

**EC number:**

671-177-5

**1.2 Relevant identified uses of the substance or mixture and uses advised against** No other important information available.

- **Sector of Use** SU24 Scientific research and development

- **Product category** PC21 Laboratory chemicals

**Application of the substance / the mixture** This product is intended for the exclusive use of Research and Development.

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

**Manufacturer/Supplier:**

Solvionic SA

11 chemin des Silos

31100 TOULOUSE

FRANCE

☎ : +33 (0).32.26.20.20

✉: contact@solvionic.com

**Further information obtainable from:** Department of Regulatory affairs

**1.4 Emergency telephone number:**

- United Kingdom: Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust, +44 20 7188 7188.

- Ireland: National Poisons Information Centre Beaumont Hospital, +353 1 809 2566 (Healthcare professionals 24/7), +353 1 809 2166 (public, 8am - 10pm, 7/7).

- France ORFILA (INRS): +33 (0)1.45.42.59.59.

- Belgique, Belgie/Belgium: Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid

Rue Bruyn 1 - 1120 Bruxelles/Brussel. Toutes les questions urgentes concernant une intoxication: 070 245 245 (gratuit, 24/7), si pas accessible 02 264 96 30 (tarif normal). Alle dringende vragen over vergiftigingen: 070 245 245 (gratis, 24/7), of indien onbereikbaar tel. 02 264 96 30 (normaal tarief).

- Sverige/ Sweden: Giftinformationscentralen Box 60 500 : 112 – begär Giftinformation ,+46 10 456 6700 (Från utlandet)

- Ελλάδα / Greece: Poisons Information Centre Children's Hospital P&A Kyriakou, +30 21 07 79 37 77.

- Italia/Italy: Centro Antiveleni di Roma CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Università Cattolica del Sacro Cuore, +39 06 305 4343.

- España/ Spain: Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Madrid, +34 91 562 04 20 (solo emergencias toxicológicas), Información en español (24h/365 días).

- Nederland/ Netherlands (NVIC): Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen, +31 (0)88 755 8000.

- Norge/ Norway: Giftinformasjon: +47 22 59 13 00.

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

Skin Irrit. 2 H315 Causes skin irritation.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**



GHS07

**Signal word** Warning

**Hazard statements**

H315 Causes skin irritation.

**Precautionary statements**

P264 Wash thoroughly after handling.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

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P321 Specific treatment (see on this label).  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.

### 2.3 Other hazards

#### Results of PBT and vPvB assessment

**PBT:** Not applicable.  
**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

#### - CAS No. / Description

CAS: 143314-16-3 1-Ethyl-3-methylimidazolium tetrafluoroborate

#### - Identification number(s)

EC number: 671-177-5

**Molecular formula:** C<sub>6</sub>H<sub>11</sub>BF<sub>4</sub>N<sub>2</sub>

**Molar mass:** 197,97 g/mol

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- . **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:** Rinse opened eye for several minutes under running water.
- . **After swallowing:** Call for a doctor immediately.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

. **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

### 5.3 Advice for firefighters

. **Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Use individual protective gear.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** In case of heat treatment, handle this product under an inert atmosphere.

. **Information about fire - and explosion protection:** No special measures required.

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

. **Storage:**

**Requirements to be met by storerooms and receptacles:** Keep this product cool and dry.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Protect from heat and direct sunlight.

**Maximum storage temperature:** Store at room temperature, not exceeding 35°C.

**7.3 Specific end use(s)** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- . **Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure controls

**Appropriate engineering controls** No further data; see section 7.

#### Individual protection measures, such as personal protective equipment

##### . General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the skin.
- Avoid contact with the eyes and skin.

##### . Respiratory protection:

Not required.

##### Hand protection



Protective gloves

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

##### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Butyl rubber, BR
- Fluorocarbon rubber (Viton)
- Nitrile rubber, NBR
- Chloroprene rubber (Neopren)

##### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### Eye/face protection

Goggles recommended during refilling

##### . Body protection:

Use protective suit.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### - General Information

Physical state	Liquid
Color:	Colourless to yellow
. Odor:	Not determined.
. Odor threshold:	Not determined.
. Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	Undetermined.
Flammability	Not applicable.
Lower and upper explosion limit	
. Lower:	Not determined.
. Upper:	Not determined.
- Flash point:	Not applicable.

##### . Decomposition temperature:

143314-16-3 | 1-Ethyl-3-methylimidazolium tetrafluoroborate | 418 °C

pH	Not determined
. at 20°C:	13,05 mS/cm
. at 25°C:	15,71 mS/cm
- Viscosity:	
Kinematic viscosity	Not determined.
Viscosity at 25 °C (77 °F)	
. Dynamic at 20 °C:	43,4 mPas
Solubility	
. water:	Not determined.
Partition coefficient n-octanol/water (log value)	-1,92082
- Vapour pressure:	Not determined.
Density and/or relative density	
- Density at 20 °C:	1,254 g/cm <sup>3</sup>
. Relative density	Not determined.
. Bulk density:	1.254 kg/m <sup>3</sup>
. Vapour density	Not determined.

#### 9.2 Other information

. Appearance:	
Form:	Liquid

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**Important information on protection of health and environment, and on safety.**

- Auto-ignition temperature:	Not determined.
- Explosive properties:	Product does not present an explosion hazard.
- Change in condition	
. Evaporation rate	Not determined.

**Information with regard to physical hazard classes**

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:** Thermal decomposition in contact with the humidity of the air.

**10.3 Possibility of hazardous reactions** In contact with water and heat, decomposition and formation of Hydrogen Fluoride (HF).

**10.4 Conditions to avoid** In case of heat treatment, avoid handling this product in air.

**10.5 Incompatible materials:** Strong oxidizer and strong acid and base.

**10.6 Hazardous decomposition products:** Hydrogen fluoride

### SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Acute toxicity** Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:**

Oral	LD50	>2.000 mg/kg (rat)
Dermal	LD50	>2.000 mg/kg (rat)

. **Skin corrosion/irritation** Causes skin irritation.

. **Serious eye damage/irritation** Based on available data, the classification criteria are not met.

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

. **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

. **Carcinogenicity** Based on available data, the classification criteria are not met.

. **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

- **Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

**11.2 Information on other hazards**

**Endocrine disrupting properties** Substance is not listed.

### SECTION 12: Ecological information

**12.1 Toxicity**

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

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### 12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

### 12.7 Other adverse effects

#### Additional ecological information:

#### General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

#### European waste catalogue

HP4	Irritant - skin irritation and eye damage
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#### Uncleaned packaging:

**Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR/RID/ADN, ADN, IMDG, IATA	not regulated
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### 14.2 UN proper shipping name

ADR/RID/ADN, ADN, IMDG, IATA	not regulated
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### 14.3 Transport hazard class(es)

ADR/RID/ADN, ADN, IMDG, IATA	not regulated
Class	

### 14.4 Packing group

ADR/RID/ADN, IMDG, IATA	not regulated
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### 14.5 Environmental hazards:

Not applicable.

### 14.6 Special precautions for user

Not applicable.

**14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

UN "Model Regulation":	not regulated
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## SECTION 15: Regulatory information

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

**Labelling according to Regulation (EC) No 1272/2008** The substance is classified and labelled according to the CLP regulation.

#### Hazard pictograms



GHS07

**Signal word** Warning

#### Hazard statements

H315 Causes skin irritation.

#### Precautionary statements

P264 Wash thoroughly after handling.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P321 Specific treatment (see on this label).

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

#### Directive 2012/18/EU

**Named dangerous substances - ANNEX I** Substance is not listed.

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

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**REGULATION (EU) 2019/1148****Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

Substance is not listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.**Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

**15.2 Chemical safety assessment:**

For this product, no chemical safety assessment has been performed.

A Chemical Safety Assessment has been carried out.

### SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

For research and development use only.

**Department issuing SDS:** Regulatory affairs department**Contact:**Email: [hse@solvionic.com](mailto:hse@solvionic.com)

Phone number: +33 (0)5.34.63.35.35

**Date of previous version:** 28.03.2023**Version number of previous version:** 4**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods (Código Marítimo Internacional de Mercancías Peligrosas).

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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## Annex: Exposure scenario

**Short title of the exposure scenario****Sector of Use** SU24 Scientific research and development**Product category** PC21 Laboratory chemicals**Description of the activities / processes covered in the Exposure Scenario** See section 1 of the annex to the Safety Data Sheet.**Conditions of use****Duration and frequency** 5 workdays/week.**Physical parameters****Physical state** Liquid**Concentration of the substance in the mixture** Raw material.**Used amount per time or activity** Smaller than 100 g per application.**Other operational conditions****Other operational conditions affecting environmental exposure** No special measures required.**Other operational conditions affecting worker exposure**

Avoid contact with eyes.

Avoid contact with the skin.

**Other operational conditions affecting consumer exposure** No special measures required.**Other operational conditions affecting consumer exposure during the use of the product** Not applicable.**Risk management measures****Worker protection****Organisational protective measures** No special measures required.**Technical protective measures** Ensure that suitable extractors are available on processing machines**Personal protective measures**

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes.

Tightly sealed goggles

Protective gloves

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

**Measures for consumer protection** Ensure adequate labelling.**Environmental protection measures****Water** No special measures required.**Disposal measures** Ensure that waste is collected and contained.**Disposal procedures** Must not be disposed together with household garbage. Do not allow product to reach sewage system.**Waste type** Partially emptied and uncleaned packaging**Exposure estimation****Consumer** Not relevant for this Exposure Scenario.**Guidance for downstream users** No further relevant information available.