

## 1-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide

Version number: PI 4.0

Date of compilation: 23.01.2025

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

#### 1.1 Product identifier

Identification of the substance	1-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide
Registration number (REACH)	unavailable
EC number	606-989-0
CAS number	223437-11-4
Reference number (ECHA)	02-2120802516-61-0000
Alternative name(s)	BMPyrr-TFSI
Alternative number(s)	00316.1000

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

Relevant identified uses	Product and process oriented research and development
Uses advised against	Do not use for private purposes (household)
HS code	29339980

#### 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](mailto:proionic.office@arkema.com)  
 Website: [www.proionic.com](http://www.proionic.com)

#### 1.4 Emergency telephone number

Poisoning information center Austria: +43 (0) 1 406 43 43

#### Emergency information service

This number is only available during the following of-  
 fice hours:  
 Austria  
 Mo-fr 8am-4pm (CET): +43 (0) 316/ 4009- 4200

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Caution! Substance not yet fully tested. Self-classification. All information refers to analogy circuits.

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.10	acute toxicity (oral)	3	Acute Tox. 3	H301

For full text of abbreviations: see SECTION 16.

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

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### 2.2 Label elements

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

- signal word danger

- pictograms

GHS06



- hazard statements

H301 Toxic if swallowed.

- precautionary statements

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P405 Store locked up.

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-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide

#### Identifiers

**CAS No** 223437-11-4

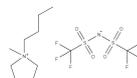
**EC No** 606-989-0

**Purity** 98,5 – 99,9 %

**Molecular formula** C<sub>11</sub>H<sub>20</sub>F<sub>6</sub>N<sub>2</sub>O<sub>4</sub>S<sub>2</sub>

**Molar mass** 422,4 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.

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### Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. In case of complaints: 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. In case of complaints: Consult a doctor.

### Following ingestion

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

### 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 (CO<sub>2</sub>)

#### Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

#### Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulphur oxides (SO<sub>x</sub>), Hydrogen fluoride (HF)

### 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

Use personal protective equipment as required. Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 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

Contaminated surfaces must not be cleaned with compressed air.

#### Advice on how to contain a spill

Covering of drains

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### Advice on how to clean up a spill

Collect spillage. Wipe up with absorbent material (e.g. cloth, fleece). Sawdust. Kieselgur (diatomite). Sand. Universal binder.

### 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

Use local and general ventilation. Use only in well-ventilated areas.

#### - 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

Store locked up. Store locked up. Keep container tightly closed and in a well-ventilated place. Keep container tightly closed and in a well-ventilated place. Keep away from other materials. Keep away from other materials. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

#### - packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

## 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

##### - body protection

Wear suitable protective clothing. Chemical protective clothing.

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### - hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use.

### - 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

In case of inadequate ventilation wear respiratory protection.

### 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

<b>Physical state</b>	liquid
<b>Colour</b>	colourless - light yellow
<b>Odour</b>	characteristic
<b>Melting point/freezing point</b>	-15 °C (SciFinder)
<b>Boiling point or initial boiling point and boiling range</b>	not determined
<b>Flammability</b>	non-combustible
<b>Lower and upper explosion limit</b>	not determined
<b>Flash point</b>	not determined
<b>Auto-ignition temperature</b>	not determined
<b>pH (value)</b>	not determined
<b>Kinematic viscosity</b>	not determined
<b>Solubility(ies)</b>	not determined

### Partition coefficient

<b>Partition coefficient n-octanol/water (log value)</b>	this information is not available
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<b>Vapour pressure</b>	not determined
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**Density and/or relative density**

<b>Density</b>	1,399 – 1,401 g/cm <sup>3</sup> at 20 °C (SciFinder)
<b>Relative vapour density</b>	information on this property is not available

<b>Particle characteristics</b>	not relevant (liquid)
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**Other information**

<b>Information with regard to physical hazard classes</b>	hazard classes acc. to GHS (physical hazards): not relevant
<b>Other safety characteristics</b>	there is no additional information

**SECTION 10: Stability and reactivity****10.1 Reactivity**

Concerning incompatibilities: see below "conditions to avoid".

**10.2 Chemical stability**

Stable when stored under the recommended storage conditions and in the original packaging.

**10.3 Possibility of hazardous reactions**

No data available.

**10.4 Conditions to avoid**

Protect from moisture.

**10.5 Incompatible materials**

There is no additional information.

**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**

There are no available test data for this substance. All information refers to analogy circuits.

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

Toxic if swallowed.

**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.

**Respiratory or skin sensitisation**

No data available.

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### Germ cell mutagenicity

No data available.

### Carcinogenicity

No data available.

### Reproductive toxicity

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

Shall not be classified as hazardous to the aquatic environment.

### 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

According to the results of its assessment, this substance is not a PBT or a vPvB.

### 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

Dispose of contents/container to industrial combustion plant.

### Waste treatment-relevant information

Incineration.

### Sewage disposal-relevant information

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

### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

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### 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

<b>14.1 UN number or ID number</b>	2810
<b>ADR/RID/ADN</b>	UN 2810
<b>IMDG-Code</b>	UN 2810
<b>ICAO-TI</b>	UN 2810
<b>14.2 UN proper shipping name</b>	TOXIC LIQUID, ORGANIC, N.O.S.
<b>ADR/RID/ADN</b>	TOXIC LIQUID, ORGANIC, N.O.S.
<b>IMDG-Code</b>	TOXIC LIQUID, ORGANIC, N.O.S.
<b>ICAO-TI</b>	Toxic liquid, organic, n.o.s. 1-Butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide
<b>14.3 Transport hazard class(es)</b>	
<b>ADR/RID/ADN</b>	6.1
<b>IMDG-Code</b>	6.1
<b>ICAO-TI</b>	6.1
<b>14.4 Packing group</b>	
<b>ADR/RID/ADN</b>	II
<b>IMDG-Code</b>	II
<b>ICAO-TI</b>	II
<b>14.5 Environmental hazards</b>	Non-environmentally hazardous acc. to the dangerous goods regulations
<b>14.6 Special precautions for user</b>	Provisions for dangerous goods (ADR) should be complied within the premises.
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	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**

<b>Classification code</b>	T1
<b>Danger label(s)</b>	6.1



<b>Special provisions (SP)</b>	274, 614, 802(ADN)
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Excepted quantities (EQ)	E4
Limited quantities (LQ)	100 ml
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	60

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

Marine pollutant	-
Danger label(s)	6.1



Special provisions (SP)	274
Excepted quantities (EQ)	E4
Limited quantities (LQ)	100 mL
EmS	F-A, S-A
Stowage category	B

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

Danger label(s)	6.1
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Special provisions (SP)	A3, A4, A137
Excepted quantities (EQ)	E4
Limited quantities (LQ)	1 L

## 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.

**List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list**  
not relevant

#### Additional information

Substance is listed in the following national inventories:

NDSL (Canada)  
REACH (Europe)  
TCSI (Taiwan)  
TSCA (United States)  
VNECI (Vietnam)

### 15.2 Chemical safety assessment

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

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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 relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
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
EmS	Emergency Schedule
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
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
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).

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### Classification procedure

All information on physical and chemical properties, except it is specially mentioned, based on literature references.

Data on similar substances were used.

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

Code	Text
H301	Toxic 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.

Proionic GmbH shall not be held liable for any damage resulting from handling or from contact with the above product.

This safety data sheet has been compiled and is solely intended for this product – it may not be valid for this product used in combination with any material or any process