# 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-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

**Article number:** PYR0405C
**CAS Number:**
367522-96-1
**EC number:**
663-158-5

**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 professionals24/7), +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: GiftinformationscentralenBox 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 Universita 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: Giftinformasjonen: +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.
Eye Irrit. 2 H319 Causes serious eye 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.
H319 Causes serious eye irritation.

**Precautionary statements**
P264 Wash thoroughly after handling.

(Contd. on page 2)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 1)

P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

**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: 367522-96-1 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate
**- Identification number(s)**
**EC number:** 663-158-5
**Molecular formula:** C10 H20 N F3 O3 S
**Molar mass:** 291,33 g/mol

| **- Dangerous components:** | | |
|---|---|---|
| CAS: 367522-96-1<br>EC number: 663-158-5 | 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate<br>Skin Irrit. 2, H315; Eye Irrit. 2, H319 | 99% |
| CAS: 120-94-5<br>EINECS: 204-438-5 | 1-methylpyrrolidine<br>Flam. Liq. 2, H225; Acute Tox. 3, H301; Skin Corr. 1A, H314; Eye Dam. 1, H318; Aquatic Chronic 2, H411 | ≤0,3% |

## 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. If symptoms persist, consult a doctor.
**. 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** No special precautions are necessary if used correctly.
**. Information about fire - and explosion protection:** No special measures required.

**7.2 Conditions for safe storage, including any incompatibilities** Shelf Life 3 months sealed.

(Contd. on page 3)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 2)

**. Storage:**
**Requirements to be met by storerooms and receptacles:** No special requirements.
**Information about storage in one common storage facility:** Not required.
**Further information about storage conditions:** Keep container tightly sealed.
**Maximum storage temperature:** Store at room temperature, not exceeding 35°C.

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

## 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 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**

Tightly sealed goggles

**. 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:** | Not determined. |
| **pH** | Not determined |
| **. at 25°C:** | |
| **- Viscosity:** | |
| **Kinematic viscosity** | Not determined. |
| **Viscosity at 25 °C (77 °F)** | |
| **. Dynamic at 20 °C:** | 221,7 mPas |
| **Solubility** | |
| **. water:** | Not miscible or difficult to mix. |
| **Partition coefficient n-octanol/water (log value)** | Not determined. |

(Contd. on page 4)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 3)

| | |
|---|---|
| **- Vapour pressure:** | Not determined. |
| **Density and/or relative density** | |
| **- Density at 20 °C:** | 1,256 g/cm³ |
| **. Relative density** | Not determined. |
| **. Bulk density:** | 1.256 kg/m³ |
| **. Vapour density** | Not determined. |

**9.2 Other information**

| | |
|---|---|
| **. Appearance:** | |
| **Form:** | Liquid |
| **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. |
| **- Solvent content:** | |
| **. VOC (EC)** | 0,00 % |
| **- 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:** No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** No further relevant information available.

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

**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

## 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:** | | |
|---|---|---|
| **ATE (Acute Toxicity Estimates)** | | |
| Oral | LD50 | 33.333 mg/kg |

| **CAS: 120-94-5 1-methylpyrrolidine** | | |
|---|---|---|
| Oral | LD50 | 100 mg/kg (ATE) |

**. Skin corrosion/irritation** Causes skin irritation.
**. Serious eye damage/irritation** Causes serious eye irritation.

**- 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.

(Contd. on page 5)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 4)

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

**11.2 Information on other hazards**

| **Endocrine disrupting properties** |
|---|
| None of the ingredients is 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.

**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 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

## 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 |

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

## SECTION 14: Transport information

| | |
|---|---|
| **14.1 UN number or ID number**<br>**ADR/RID/ADN, ADN, IMDG, IATA** | not regulated |
| **14.2 UN proper shipping name**<br>**ADR/RID/ADN, ADN, IMDG, IATA** | not regulated |
| **14.3 Transport hazard class(es)**<br>**ADR/RID/ADN, ADN, IMDG, IATA**<br>**Class** | not regulated |
| **14.4 Packing group**<br>**ADR/RID/ADN, IMDG, IATA** | not regulated |
| **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 |

* 

## 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.

(Contd. on page 6)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 5)

**Hazard pictograms**

GHS07

**Signal word** Warning
**Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
**Precautionary statements**
P264 Wash thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
**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** |
|---|
| None of the ingredients is listed. |

**REGULATION (EU) 2019/1148**

| **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))** |
|---|
| None of the ingredients is listed. |

| **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** |
|---|
| None of the ingredients is listed. |

| **Regulation (EC) No 273/2004 on drug precursors** |
|---|
| None of the ingredients is listed. |

| **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors** |
|---|
| None of the ingredients is 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.
**Relevant phrases**
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
**Department issuing SDS:** Regulatory affairs department
**Contact:**
Email: hse@solvionic.com
Phone number: +33 (0)5.34.63.35.35
**Date of previous version:** 18.06.2023
**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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 7)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 6)

VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

UE

(Contd. on page 8)

# 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

**Trade name: 1-Butyl-1-methylpyrrolidinium trifluoromethanesulfonate 99%**

(Contd. of page 7)

## 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.