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

1.1 Product identifier
Trade name: 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99.9%
Article number: IM0408A
CAS Number: 174899-83-3
EC number: 605-742-4

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

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier: Solvionic SA
11 chemin des Silos
31100 TOULOUSE
FRANCE
✆: +33 (0)3.26.26.20.20
✉: contact@solvionic.com

Further information obtainable from: Department of Regulatory affairs

1.4 Emergency telephone number:
- United Kingdom: Guy's & St Thomas' 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).
- Belgium, Belgique/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).
- France ORFILA (INRS): +33 (0)1.45.42.59.59.
- Sweden/ Sverige: Giftinformationscentralen Box 60 500 112 –埠扌Giftinformation, +46 10 456 6700 (Från utlandet)
- Greece/ Ελλάδα: Poisons Information Centre Children’s Hospital P&A Kyriakou, +30 21 07 79 37 77.
- Italy/Italia: Centro Antiveniveni di Roma CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Università Cattolica del Sacro Cuore, +39 06 305 4343.
- Spain/ España: 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).
- Netherlands/ Nederland (NVIC): Uitsluitend bestemd om professionele hulpverleners te informeren bij acute vergiftigingen, +31 (0)88 755 8000.
- Norway/ Norge: 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
Acute Tox. 3 H301 Toxic if swallowed.
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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

GHS06

Signal word: Danger

Hazard statements
H301 Toxic if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P264 Wash thoroughly after handling.
Trade name: 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99,9%

P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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: 174899-83-3 1H-imidazolium, 3-butyl-1-methyl-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl]methanesulfonamide (1:1)
- Identification number(s)
EC number: 605-742-4
Molecular formula: C10 H15 F6 N3 O4 S2
Molar mass: 419.37 g/mol

SECTION 4: First aid measures

4.1 Description of first aid measures
- General information:
Immediately remove any clothing soiled by the product.
Artificial respiration in the case of irregular breathing or respiratory arrest.
. 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. Then consult a doctor.
. After swallowing:
Do not induce vomiting, seek urgent medical attention.
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:
Inform respective authorities in case of seepage into water course or sewage system.
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).
Dispose contaminated material as waste according to section 13.

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.

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

(Contd. on page 3)
Trade name: 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonylimide) 99,9%

7.2 Conditions for safe storage, including any incompatibilities

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: None.
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.
  - Respiratory protection: Not required.
  - Hand protection
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    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.
    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: Fluid
  - Color: Colorless
  - Odor: Not determined.
  - Odor threshold: Not determined.
  - Melting point/freezing point: -4 °C
  - 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:
    - at 20°C: 7
    - at 25°C: 3,23 mS/cm
  - Viscosity:
    - Kinematic viscosity: 4,03 mS/cm
  - Viscosity at 25 °C (77 °F) Dynamic at 20 °C:
    63,8 mPas
  - Solubility:
    - water: Not determined.
  - Partition coefficient n-octanol/water (log value): Not determined.
  - Vapour pressure at 200 °C: 0,0005 hPa
  - Density and/or relative density
    - Density at 20 °C: 1,43 g/cm³
    - Relative density: Not determined.
    - Vapour density: Not determined.

9.2 Other information
- Appearance:
  - Form: Fluid
- 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.
Trade name: 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99.9%

<table>
<thead>
<tr>
<th>- Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Crystallisation temperature / range: -46 °C</td>
</tr>
<tr>
<td>. Evaporation rate Not determined.</td>
</tr>
</tbody>
</table>

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 Toxic if swallowed.

LD/LC50 values relevant for classification:

Oral [LD50] 100 mg/kg (ATE)

- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- 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.

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

Remark: Harmful to fish

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.
Harmful to aquatic organisms.

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

<table>
<thead>
<tr>
<th>HP6</th>
<th>Acute Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP14</td>
<td>Ecotoxic</td>
</tr>
</tbody>
</table>

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, IMDG, IATA UN2810

14.2 UN proper shipping name
ADR/RID/ADN IMDG, IATA

| UN2810 TOXIC LIQUID, ORGANIC, N.O.S. (1H-imidazolium, 3-buty1-1-methyl-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl] methanesulfonamide (1:1)) |
| TOXIC LIQUID, ORGANIC, N.O.S. (1H-imidazolium, 3-buty1-1-methyl-, salt with 1,1,1-trifluoro-N-[(trifluoromethyl)sulfonyl] methanesulfonamide (1:1)) |

14.3 Transport hazard class(es)
ADR/RID/ADN, IMDG, IATA

<table>
<thead>
<tr>
<th>Class</th>
<th>6.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>6.1</td>
</tr>
</tbody>
</table>

14.4 Packing group
ADR/RID/ADN, IMDG, IATA III

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user

<table>
<thead>
<tr>
<th>Hazard identification number (Kemler code):</th>
<th>Warning: Toxic substances.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS Number:</td>
<td>F-A,S-A</td>
</tr>
<tr>
<td>Stowage Category</td>
<td>A</td>
</tr>
<tr>
<td>Stowage Code</td>
<td>SW2 Clear of living quarters.</td>
</tr>
</tbody>
</table>

14.7 Maritime transport in bulk according to IMO instruments
Not applicable.
Trade name: 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99.9%

UN "Model Regulation":
UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (1H-IMIDAZOLIUM, 3-BUTYL-1-METHYL-, SALT WITH 1,1,1-TRIFLUORO-N-[TRIFLUOROMETHYL]SULFONAMIDE (1:1)), 6.1, III

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

GHS06

Signal word Danger

Hazard statements
H301 Toxic if swallowed.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Directive 2012/18/EU
Named dangerous substances - ANNEX I Substance is not listed.
Seveso category H2 ACUTE TOXIC
Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

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.

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
Phone number: +33 (0)5.34.63.35.35

Date of previous version: 11.08.2022
Version number of previous version: 8

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)
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)
**Trade name:** 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99,9%

<table>
<thead>
<tr>
<th>LC50</th>
<th>Lethal concentration, 50 percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>Acute Tox. 3</td>
<td>Acute toxicity – Category 3</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment - long-term aquatic hazard – Category 3</td>
</tr>
</tbody>
</table>

(Contd. of page 6)

(Contd. on page 8)
## Annex: Exposure scenario

**Trade name:** 1-Butyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide 99.9%

### 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** Fluid
  - **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** Use only on hard ground.
- **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
    - Use product only in enclosed systems.
    - 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

### Personal protective measures
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

### Measures for consumer protection
- Ensure adequate labelling.

### Environmental protection measures
- **Water**
  - Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
  - Do not allow to reach sewage system.
- **Soil**
  - Prevent contamination of soil.
- **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.