MSDS Compilation - bead-LAMP kits

Vienna Biocenter Core Facilities GmbH
Dr Bohr Gasse 3, 1030, Vienna, Austria

This information is provided for purchasers of bead-LAMP kit 100 reactions and bead-LAMP kit 1000 reactions.

Table 1. Overview of Vienna Biocenter Core Facilities MSDS for bead-LAMP kits

<table>
<thead>
<tr>
<th>Tube</th>
<th>Reagent</th>
<th>MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1B</td>
<td>QuickExtract DNA extraction solution</td>
<td>No 1)</td>
</tr>
<tr>
<td>2B</td>
<td>Bead-LAMP mix</td>
<td>No 1)</td>
</tr>
<tr>
<td>3B</td>
<td>SARS-CoV-2 primers</td>
<td>No 1)</td>
</tr>
<tr>
<td>4B</td>
<td>Guanidine hydrochloride solution (160 mM)</td>
<td>YES</td>
</tr>
<tr>
<td>5B</td>
<td>Positive control</td>
<td>No 1)</td>
</tr>
<tr>
<td>6B</td>
<td>Magnetic beads</td>
<td>No 1)</td>
</tr>
</tbody>
</table>

1) Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. Not a hazardous substance or mixture according to EC directives 67/548/EEC or 1999/45/EC.
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- **Product Name**: Guanidine hydrochloride solution
- **Product Number**: N/A
- **Kit name**: bead-LAMP kit
- **Brand**: Vienna Biocenter Core Facilities GmbH
- **REACH No.**: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

- **Recommended use**: Laboratory chemicals. This product is for research and development only.
- **Uses advised against**: No information available

1.3. Details of the supplier of the safety data sheet

- **Company**: Vienna Biocenter Core Facilities GmbH
  Dr Bohr Gasse 3
  1030 Vienna
  Austria
- **Telephone**: +43 1 796 23 24 7000
- **Email**: contact@vbcf.ac.at

1.4. Emergency telephone number

- **Emergency Telephone**: +43 1 406 43 43

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

- **Classification according to Regulation (EC) No. 1272/2008**
  - Acute toxicity, Oral (Category 4), H302
  - Acute toxicity, Inhalation (Category 4), H332
  - Skin irritation (Category 2), H315
  - Eye irritation (Category 2), H319
  - For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. Label elements

  - **Hazard components for labelling**: Guanidine hydrochloride solution
  - **Signal word**: Warning
  - **Pictograms**: 

Hazard statements

- H302 + H332: Harmful if swallowed or if inhaled.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.

Precautionary statements - EU (§28, 1272/2008)

- P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280    Wear eye protection/ face protection.
P301 + P312 + P330    IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P304 + P340 + P312    IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a
                      POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338    IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if 
                      present and easy to do. Continue rinsing.
P337 + P313    If eye irritation persists: Get medical advice/ attention.

Supplemental Hazard Statements
None

2.3. Other hazards
None known. This substance/mixture contains no components considered to be either persistent, bioaccumulative
and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Synonyms
Guanidinium chloride
Aminoformamidinehydrochloride
Guanidium chloride

Molecular weight 95.53 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guanidinium chloride</td>
<td>Acute Tox. 4; Skin Irrit. 2;</td>
<td>&gt;= 1.4 - &lt; 1.8 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>Eye Irrit. 2; H302, H332,</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>H315, H319</td>
<td></td>
</tr>
<tr>
<td>Index-No.</td>
<td>50-01-1</td>
<td></td>
</tr>
<tr>
<td>Registration number</td>
<td>200-002-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>607-148-00-0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01-2119977063-35-XXXX</td>
<td></td>
</tr>
</tbody>
</table>

Full text of H and EUH statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures
General information Consult a physician. Show this safety data sheet to the doctor in attendance.
Inhalation If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Consult a physician.
Eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact Wash off with soap and plenty of water. Consult a physician.
Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water.
Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3. Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2. Special hazards arising from the substance or mixture
   Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas

5.3. Advice for firefighters
   Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Additional information
   No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
   Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
   For personal protection see section 8.

6.2. Environmental precautions
   Do not let product enter drains.

6.3. Methods and material for containment and cleaning up
   Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections
   For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
   Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
   For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities
   Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)
   Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
   Components with workplace control parameters

8.2. Exposure controls
   Appropriate engineering controls
   Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

   Protective and hygiene measures
   The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
   Wash hands before breaks and after work.

   Eye/face protection
   Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

   Skin protection
   Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
   The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

   Full contact
   Material: Nitrile rubber
   Minimum layer thickness: 0,11 mm
Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance</td>
<td>Form: liquid</td>
</tr>
<tr>
<td>b) Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>c) Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>d) pH</td>
<td>No data available</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>j) Upper/lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>k) Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>l) Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>n) Water solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>o) Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>p) Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>q) Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>r) Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>s) Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>t) Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
10.4. Conditions to avoid
No data available

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
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
Additional Information
RTECS: Not available
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1. Toxicity
No data available
12.2. Persistence and degradability
No data available
12.3. Bioaccumulative potential
No data available
12.4. Mobility in soil
No data available
12.5. Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
12.6. Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company
Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1. UN number
ADR/RID: -
IMDG: -
IATA: -

14.2. UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: -
IMDG: -
IATA: -

14.4 Packaging group
ADR/RID: -
IMDG: -
IATA: -

14.5. Environmental hazards
ADR/RID: no
IMDG Marine pollutant: no
IATA: no

14.6. Special precautions for user
No data available

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.

15.2. Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
H302 + H332 Harmful if swallowed or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Disclaimer
IMPORTANT: The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of Vienna Biocenter Core Facilities GmbH, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Vienna Biocenter Core Facilities GmbH will not be liable for any damages resulting from handling or contact with the product.

End of Safety Data Sheet