SECTION 1: Identification

1.1 Product identifier
   Trade name: BAX® System Lysis Buffer
   Product code(s): ASY2011

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Relevant identified uses: Laboratory and analytical use

1.3 Details of the supplier of the safety data sheet
   Hygiena USA
   941 Avenida Acaso
   Camarillo California 93012
   United States
   Telephone: +1 (805) 388-8007
   Telefax: +1 (805) 388-5531
   e-mail: info@hygiena.com
   e-mail (competent person): info@hygiena.com

1.4 Emergency telephone number
   Emergency information service: 1-888-494-4362
   This number is only available during the following office hours: Mon-Fri 08:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture
   Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
   This mixture does not meet the criteria for classification.

2.2 Label elements
   Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
   not required

2.3 Other hazards
   of no significance

SECTION 3: Composition/information on ingredients

3.1 Substances
   Not relevant (mixture)

3.2 Mixtures
### Description of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>Wt%</th>
<th>Classification acc. to GHS</th>
<th>Pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyrogen Free Water</td>
<td>CAS No 7732-18-5</td>
<td>≥ 90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tris HCl</td>
<td>CAS No 1185-53-1</td>
<td>0.1 – &lt; 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tris</td>
<td>CAS No 77-86-1</td>
<td>0.1 – &lt; 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KCl</td>
<td>CAS No 7447-40-7</td>
<td>0.1 – &lt; 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium Chloride</td>
<td>CAS No 7791-18-6</td>
<td>&lt; 0.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced Triton X-100</td>
<td>CAS No 92046-34-9</td>
<td>&lt; 0.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For full text of abbreviations: see SECTION 16.

### 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.

**Following skin contact**

Wash with plenty of soap and water.

**Following eye contact**

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

**Following ingestion**

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

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

#### 4.3 Indication of any immediate medical attention and special treatment needed

none
SECTION 5: Fire-fighting measures

5.1 Extinguishing media
   Suitable extinguishing media
      Water spray, BC-powder, Carbon dioxide (CO2)
   Unsuitable extinguishing media
      Water jet

5.2 Special hazards arising from the substance or mixture
   Hazardous combustion products
      Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters
   In case of fire and/or explosion do not breathe fumes. Coordinate 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
      Wear breathing apparatus if exposed to vapors/dust/aerosols/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
   Advice on how to contain a spill
      Covering of drains
   Advice on how to clean up a spill
      Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: 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
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommandations

- Measures to prevent fire as well as aerosol and dust generation
  
  Use local and general ventilation. Use only in well-ventilated areas.

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

Control of the effects

Protect against external exposure, such as

Frost

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
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</thead>
<tbody>
<tr>
<td>Tris HCl</td>
<td>1185-53-1</td>
<td>DNEL</td>
<td>152.8 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tris HCl</td>
<td>1185-53-1</td>
<td>DNEL</td>
<td>216.6 mg/kg bw/day</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
  
  General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection
  
  Wear eye/face protection.

Skin protection

- Hand protection
  
  Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- **Other protection measures**
  
  Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

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

<table>
<thead>
<tr>
<th>Appearance</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>various</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
</tr>
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</table>

**Other safety parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (value)</td>
<td>not determined</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not relevant, (fluid)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>not determined</td>
</tr>
<tr>
<td>Density</td>
<td>not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>this information is not available</td>
</tr>
<tr>
<td>Relative density</td>
<td>Information on this property is not available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>not determined</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td></td>
</tr>
<tr>
<td>- n-octanol/water (log KOW)</td>
<td>this information is not available</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>not determined</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>none</td>
</tr>
</tbody>
</table>

9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Solvent content</td>
<td>99.65 %</td>
</tr>
<tr>
<td>Solid content</td>
<td>0.346 %</td>
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</table>

SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

10.5 Incompatible materials
Oxidizers

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 toxicological effects
Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)
This mixture does not meet the criteria for classification.

Acute toxicity
Shall not be classified as acutely toxic.

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 sensitization
   Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity
   Shall not be classified as germ cell mutagenic.

Carcinogenicity
   Shall not be classified as carcinogenic.

Reproductive toxicity
   Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure
   Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure
   Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard
   Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity
   Shall not be classified as hazardous to the aquatic environment.

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
   Data are not available.

12.6 Endocrine disrupting properties
   None of the ingredients are listed.

12.7 Other adverse effects
   Data are not available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages
Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

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

14.1 UN number
not subject to transport regulations

14.2 UN proper shipping name
not assigned

14.3 Transport hazard class(es)
not assigned

14.4 Packing group
not assigned

14.5 Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information
Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information
Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information
Not subject to ICAO-IATA.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question
National regulations (United States)

Superfund Amendment and Reauthorization Act (SARA TITLE III )
- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)
  none of the ingredients are listed
Specific Toxic Chemical Listings (EPCRA Section 313)
none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)
  none of the ingredients are listed

Clean Air Act
none of the ingredients are listed

Right to Know Hazardous Substance List
- Hazardous Substance List (NJ-RTK)
  none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and
Toxic Enforcement Act of 1987
none of the ingredients are listed

Industry or sector specific available guidance(s)

**NPCA-HMIS® III**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>/</td>
<td>none</td>
</tr>
<tr>
<td>Health</td>
<td>0</td>
<td>no significant risk to health</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
<td>material that must be preheated before ignition can occur</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>0</td>
<td>material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive</td>
</tr>
<tr>
<td>Personal protection</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**NFPA® 704**

<table>
<thead>
<tr>
<th>Category</th>
<th>Degree of hazard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
<td>material that must be preheated before ignition can occur</td>
</tr>
<tr>
<td>Health</td>
<td>0</td>
<td>material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material</td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
<td>material that is normally stable, even under fire conditions</td>
</tr>
<tr>
<td>Special hazard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
National inventories

<table>
<thead>
<tr>
<th>Country</th>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>AICS</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>CA</td>
<td>DSL</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>CN</td>
<td>IECSC</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>EU</td>
<td>ECSI</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>EU</td>
<td>REACH Reg.</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>JP</td>
<td>CSCL-ENCS</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>KR</td>
<td>KECI</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>MX</td>
<td>INSQ</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>NZ</td>
<td>NZIoC</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>PH</td>
<td>PICCS</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>TR</td>
<td>CICR</td>
<td>not all ingredients are listed</td>
</tr>
<tr>
<td>TW</td>
<td>TCSI</td>
<td>all ingredients are listed</td>
</tr>
<tr>
<td>US</td>
<td>TSCA</td>
<td>not all ingredients are listed</td>
</tr>
</tbody>
</table>

Legend

- AICS: Australian Inventory of Chemical Substances
- CICR: Chemical Inventory and Control Regulation
- CSCL-ENCS: List of Existing and New Chemical Substances (CSCL-ENCS)
- DSL: Domestic Substances List (DSL)
- ECSI: EC Substance Inventory (EINECS, ELINCS, NLP)
- IECSC: Inventory of Existing Chemical Substances Produced or Imported in China
- INSQ: National Inventory of Chemical Substances
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances (PICCS)
- REACH Reg.: REACH registered substances
- TCSI: Taiwan Chemical Substance Inventory
- TSCA: Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>49 CFR US DOT</td>
<td>49 CFR U.S. Department of Transportation</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
</tbody>
</table>

Version number: 1.0
Date of compilation: 2021-03-12
**Safety Data Sheet**

acc. to 29 CFR 1910.1200 App D

**BAX® System Lysis Buffer**

**Descriptions of used abbreviations**

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration (United States)</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>RTECS</td>
<td>Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
</tbody>
</table>

**Key literature references and sources for data**


**Classification procedure**

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

**Disclaimer**

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.