# BIOMEME, INC.
# Safety Data Sheet

## DNA/RNA Preservation Buffer Tubes

## SECTION 1: Identification

**1.1 Product identifier**

| | |
|---|---|
| Product name | DNA/RNA Preservation Buffer Tubes |
| Brand | Biomeme, Inc. |

**1.4 Supplier's details**

| | |
|---|---|
| Name: | Biomeme, Inc. |
| Address: | 401 N. Broad Street<br>Suite 222<br>Philadelphia, PA 19108<br>USA |
| Telephone: | 267-930-7707 |
| Email: | support@biomeme.com |
| Emergency Number: | +1 703-741-5970 |
| Emergency Information: | ChemTrec<br>2900 Fairview Park Drive,<br>Falls Church, VA 22042<br>USA |

## SECTION 2: Hazard identification

**General hazard statement**
"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)**

- Eye damage/irritation, Cat. 2A
- Flammable liquids, Cat. 3
- Skin corrosion/irritation, Cat. 1A
- Eye damage/irritation, Cat. 1
- Flammable liquids, Cat. 2
- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A

**2.2 GHS label elements, including precautionary**

**statementsPictogram**

| | |
|---|---|
| **Signal word** | **Danger** |

**Hazard statement(s)**

| | |
|---|---|
| H225 | Highly flammable liquid and vapor |
| H226 | Flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |

**Precautionary statement(s)**

| | |
|---|---|
| P264 | Wash … thoroughly after handling. |
| P280 | Wear eye protection/face protection/protective gloves/protective clothing. |
| 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. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting/…/ equipment. |
| P270 | Do not eat, drink or smoke when using this product. |
| P242 | Use only non-sparking tools. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell, |
| P243 | Take precautionary measures against static discharge. |
| P330 | Rinse mouth. |
| P302+P352 | IF ON SKIN: Wash with plenty of water/... |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P370+P378 | In case of fire: Use … to extinguish. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P501 | Dispose of contents/container to … |
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| P363 | Wash contaminated clothing before reuse. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P310 | Immediately call a POISON CENTER/doctor/... |
| P321 | Specific treatment (see … on this label). |
| P405 | Store locked up. |

### 2.3 Other hazards which do not result in classification

Slip hazard from spills

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**Hazardous components**

**1. Component 1 (trade secret)***
Concentration 25 - 50 % (volume)
- Serious eye damage/eye irritation, Cat. 2
H319 Causes serious eye irritation

**2. Component 2 (trade secret)***
Concentration 70 - 90 % (volume)

**3. Component 3 (trade secret)***
Concentration 0 - 20 % (volume)

**4. Component 4 (trade secret)***
Concentration 0 - 20 % (weight)
- Flammable liquids, Cat. 3
- Skin corrosion/irritation, Cat. 1A
H226 Flammable liquid and vapor
H314 Causes severe skin burns and eye damage

**5. Guanidine Thiocyanate**
Concentration 25 - 75 % (weight)
CAS no. 593-84-0

**6. Component 6 (trade secret)***
Concentration 0 - 10 % (volume)

**7. Component 7 (trade secret)***
Concentration 0 - 10 % (volume)

**8. Component 8 (trade secret)***
Concentration 0 - 50 % (weight)
- Flammable liquids, Cat. 2
H225 Highly flammable liquid and vapor

**9. Component 9 (trade secret)***
Concentration Not specified
- Acute toxicity, oral, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A
H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation

**Trade secret statement (OSHA 1910.1200(i))**
*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listedcomponents are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

| | |
|---|---|
| If inhaled | Remove person to fresh air and keep comfortable for breathing. Call a poisoncenter or doctor if you feel unwell.<br><br>Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing,wheezing, shortness of breath and pulmonary edema. |
| In case of skin contact water/shower | Take off immediately all contaminated clothing. Rinse skin with<br><br>for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Wash contaminated clothing before reuse. |
| In case of eye contact if | Rinse cautiously with water for at least 15 minutes. Remove contact lenses,<br><br>present and easy to do. Continue rinsing. Immediately call a poison center ordoctor. |
| If swallowed | Rinse mouth. Do NOT induce vomiting. Immediately call a poison center ordoctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.<br><br>Acute and delayed symptoms and effects: Harmful if swallowed. Causesburns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, anddiarrhea, blood in the feces and/or vomitus may also be seen. |

**4.2 Most important symptoms/effects, acute and delayed**
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

**4.3 Indication of immediate medical attention and special treatment needed, if necessary**
No data available.

## SECTION 5: Fire-fighting measures

**5.1 Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Specific hazards arising from the chemical**
No data available.
—
Carbon oxides

**5.3 Special protective actions for fire-fighters**
Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/ortoxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

**Further information**
Use water spray to cool unopened containers. Spills produce extremely slippery surfaces.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Warning: Do not touch or walk through spilled material. Spills can create very slippery surfaces. Wear respiratoryprotection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### 6.2 Environmental precautions

Do not contaminate water.

### 6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Sweep up and shovel into suitable containers for disposal.

**Reference to other sections**

For disposal see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Surfaces are very slippery from this product. Do not swallow. Do not breathe mist, vapors, or spray. Washthoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. See Section 8 for information on Personal Protective Equipment.

### 7.2 Conditions for safe storage, including any incompatibilities

Freezing will adversely affect the quality of the product. Store locked up. Keep away from heat and sources of ignition. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keepout of the reach of children.

**Specific end use(s)**

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**1. Component 4 (trade secret)***

PEL (Inhalation): 25 mg/m3; USA
(OSHA) OSHA Annotated Table Z-1,
www.osha.gov

PEL (Inhalation): 10 ppm; USA (OSHA)
OSHA Annotated Table Z-1,
www.osha.gov

PEL (Inhalation): 10 ppm, (ST) 15 ppm, (C) 40 ppm; USA (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 10 ppm, (ST) 15 ppm; USA
(NIOSH)OSHA Annotated Table Z-1,
www.osha.gov

TLV® (Inhalation): 10 ppm, (ST) 15 ppm; USA
(ACGIH)OSHA Annotated Table Z-1, www.osha.gov

TWA (Inhalation): 10 ppm; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)/ Pulmonary function

STEL (Inhalation): 15 ppm; USA (ACGIH)
USA. ACGIH Threshold Limit Values (TLV)/Pulmonary function.Upper Respiratory Tract irritation. Eye irritation

ST (Inhalation): 15
ppm37 mg/m3; USA
(NIOSH)

USA. NIOSH Recommended
Exposure Limits/ Can be found in concentrations of 5-8% in vinegar

TWA (Inhalation): 10
ppm25 mg/m3; USA
(NIOSH)
USA. NIOSH Recommended
Exposure Limits/ Can be found in concentrations of 5-8% in vinegar

TWA (Inhalation): 10
ppm25 mg/m3; USA
(OSHA)
USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for
AirContaminants

PEL (Inhalation): 10 ppm
25 mg/m3; USA (Cal/OSHA)
California permissible exposure limits for chemical contaminants
(Title 8, Article 107)

STEL (Inhalation): 15
ppm 37 mg/m3; USA
(Cal/OSHA)
California permissible exposure limits for chemical contaminants
(Title 8, Article 107)

C (Inhalation): 40 ppm; USA (Cal/OSHA)
California permissible exposure limits for chemical contaminants
(Title 8, Article 107)

**2. Component 8 (trade secret)***
PEL (Inhalation): 1000 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 1900 mg/m3 (OSHA)
OSHA Annotated Table Z-1,
www.osha.gov

PEL (Inhalation): 1000 ppm (Cal/OSHA)
OSHA Annotated Table Z-1,
www.osha.gov

REL (Inhalation): 1000 ppm (NIOSH)
OSHA Annotated Table Z-1,
www.osha.gov

TLV® (Inhalation): (ST) 1000 ppm; USA
(ACGIH)OSHA Annotated Table Z-1,
www.osha.gov

### 8.2 Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommendedexposure limits.

### 8.3 Individual protection measures, such as personal protective equipment

**(PPE)Pictograms**

**Eye/face protection**
Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate governmentstandards such as NIOSH (US) or EN 166(EU). Ensure that eyewash stations and/or safety showers are close to the workstation location if working with concentrated product.

**Skin protection**
Wear protective gloves, such as PVC or other plastic material. Consult manufacturer specifications for further information.

**Body protection**
Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specificworkplace.

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurposecombination (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).

**Thermal hazards**
No data available.

**Environmental exposure controls**
Do not let product enter drains.

## SECTION 9: Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| Appearance/form (physical state, color, etc.) | Colorless |
| liquid. Odor | No data |
| available. | |
| Odor threshold | No data available. |
| pH | No data available. |
| Melting point/freezing point | No data available. |
| Initial boiling point and boiling range | No data available. |
| Flash point | No data available. |
| Evaporation rate | No data available. |
| Flammability (solid, gas) | No data available. |
| Upper/lower flammability limits | No data available. |
| Upper/lower explosive limits | No data available. |
| Vapor pressure | No data available. |
| Vapor density | No data available. |
| Relative density | No data available. |
| Solubility(ies) | No data available. |
| Partition coefficient: n-octanol/water | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Viscosity | No data available. |
| Explosive properties | No data available. |
| Oxidizing properties | No data available. |

**Other safety information**
No data available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity**
Contact with incompatible materials. Sources of ignition. Exposure to heat.

**10.2 Chemical stability**
Stable under normal storage conditions.

**10.3 Possibility of hazardous reactions**
No data available.

**10.4 Conditions to avoid**
Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

**10.5 Incompatible materials**
—
Strong oxidizing agents
—
Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g.potassium permanganate, Amines, Alcohols, Nitric acid
—
Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g.potassium
permanganate, Amines, Alcohols, Nitric acid
—
Alkali metals, Oxidizing agents, Peroxides
—
Strong acids, Strong oxidizing agents, Bromine trifluoride

**10.6 Hazardous decomposition products**
Thermal decomposition may produce: nitrogen oxides, carbon oxides, sulfur oxides, hydrogen cyanide
—
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)Other decomposition products - No data available
In the event of fire: see section 5
—
Hazardous decomposition products formed under fire conditions. - Carbon oxidesOther decomposition products - No data available
In the event of fire: see section 5
—
Other decomposition products - No data available
Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Lithium oxidesIn the event of fire: see section 5

## SECTION 11: Toxicological information

**Information on toxicological**

**effectsAcute toxicity**

LD50 Oral - Rat - 3,310 mg/kg
LC50 Inhalation - Mouse - 5620 ppm - 1 h
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organsand Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

LC50 Inhalation - Rat - 11.4 mg/l -
4 hLD50 Skin - Rat - 1,112 mg/kg
LD50 Oral - Rat - male and female - 4,500 mg/kgLD50 Oral - Rat - 10,470 mg/kg
LD50 Skin - Rabbit - 15,800 mg/kg

LD50 Inhalation - Rat - 30,000 mg/l -
4 h

Component 8: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

**Skin corrosion/irritation**
LD50 Skin - Rat - 1,112 mg/kg
LD50 Skin - Rabbit - 15,800
mg/kg
OECD Test Guideline 404 Skin - Rabbit -
24 hResult: No skin irritation

**Serious eye damage/irritation**
OECD Test Guideline 405 Eyes -
RabbitResult: Moderate eye irritation

**Respiratory or skin sensitization**
LC50 Inhalation - Mouse - 5620 ppm - 1 h
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organsand Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.
LC50 Inhalation - Rat - 11.4 mg/l - 4 h
LD50 Inhalation - Rat - 30,000 mg/l - 4
h

**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 a carcinogen or potential carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogenor potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen orpotential carcinogen by OSHA.

**Reproductive toxicity**
No data available.

**STOT-single exposure**
No data available.

**STOT-repeated exposure**
No data available.

**Aspiration hazard**
No data available.

**Additional information**
No data available.

## SECTION 12: Ecological information

**Toxicity**
No data available on product

**Persistence and degradability**

No data available on product

**Bioaccumulative potential**
No data available on product

**Mobility in soil**
No data available on product

**Results of PBT and vPvB assessment**
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## SECTION 13: Disposal considerations

**Disposal of the product**
Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulationsmay be more stringent than State or Federal requirements.

**Disposal of contaminated packaging**
Dispose of as unused product.

## SECTION 14: Transport information

**DOT (US)**
Not necessary.

**IMDG**
Not necessary.

**IATA**
Not necessary.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

**Massachusetts Right To Know Components**
CAS number: 60-00-4
CAS number: 64-19-7
CAS number: 64-17-5

**New Jersey Right To Know Components**
CAS number: 60-00-4
CAS number: 7732-18-5
CAS number: 64-19-7
CAS number: 64-17-5
CAS number: 7447-41-8

**Pennsylvania Right To Know Components**
CAS number: 60-00-4
CAS number: 7732-18-5
CAS number: 64-19-7
CAS number: 64-17-5
CAS number: 7447-41-8

**SARA 313 Components**
This material does not contain any chemical components with known CAS numbers that exceed the threshold (DeMinimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**SARA 302 Components**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**California Prop. 65 Components**
WARNING! This product contains a chemical known to the State of California to cause cancer.
WARNING: This product contains a chemical known to the State of California to cause birth defects or otherreproductive harm
CAS-No. 64-17-5

## SECTION 16: Other information

**16.1 Further information/disclaimer**

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Biomeme, Inc. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Biomeme, Inc. has been advised of the possibilityof such damages.