

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### GHS product identifier

**Product Name** Biofluids Lysis Buffer

### Other means of identification

**Product Code(s)** 10178100, 10174500, 10225700, 10225600

**Synonyms** Plasma Lysis Buffer

### Recommended use of the chemical and restrictions on use

**Recommended Use** General Laboratory Use

**Uses advised against** No information available

### Supplier's details

#### **Supplier Address**

HTG Molecular Diagnostics Inc.  
3430 E. Global Loop  
Tucson, AZ 85706  
TEL: (520) 547-2827  
FAX: (520) 547-2837

### Emergency telephone number

**Emergency Telephone** CHEMTREC: 1-800-424-9300 for US/ 703-527-3887 outside US Number

## HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

|                       |             |
|-----------------------|-------------|
| Reproductive Toxicity | Category 1B |
|-----------------------|-------------|

### GHS Label elements, including precautionary statements

#### Emergency Overview

**Signal Word** Danger

#### **Hazard Statements**

· May damage fertility or the unborn child

**Appearance** Transparent, Red**Physical State** Liquid.**Odor** Odorless**Precautionary Statements****Prevention**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.

**General Advice**

- If exposed or concerned: Get medical attention/advice

**Storage**

- Store locked up.

**Disposal**

- Dispose of contents/container to an approved waste disposal plant.

**Hazard Not Otherwise Classified (HNOC)**

Not applicable

**Other information**

May be harmful if inhaled. May be harmful if absorbed through skin. May be harmful if swallowed. May cause eye, skin, and respiratory tract irritation. Harmful to aquatic life

|   |
|---|
| <b>COMPOSITION/INFORMATION ON INGREDIENTS</b> |
|---|

| Chemical Name         | CAS-No    | Weight % | Trade secret |
|-----------------------|-----------|----------|--------------|
| Formamide             | 75-12-7   | 30-60    | *            |
| Sodium lauryl sulfate | 151-21-3  | 1-5      | *            |
| Zinc Sulfate Solution | 7733-02-0 | ≥ 1%     | *            |

*\*The exact percentage (concentration) of composition has been withheld as a trade secret.*

|                           |
|---------------------------|
| <b>FIRST AID MEASURES</b> |
|---------------------------|

**Description of necessary first-aid measures****Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Consult a physician.

**Skin Contact**

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Consult a physician.

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | Move to fresh air. Administer oxygen if breathing is difficult and you are trained. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get medical attention immediately if symptoms occur. |
| <b>Ingestion</b>  | Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention immediately if symptoms occur. Consult a physician.   |

**Most important symptoms/effects, acute and delayed**

**Most Important Symptoms/Effects** No information available.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to Physician** Treat symptomatically.

**FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific Hazards Arising from the Chemical**

No information available.

**Explosion Data**

**Sensitivity to Mechanical Impact** None. **Sensitivity to Static Discharge** None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.

**Environmental Precautions**

**Environmental Precautions** Avoid release to the environment. Dispose of contents/container to an approved waste disposal plant. See Section 12 for additional Ecological Information.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**HANDLING AND STORAGE****Precautions for safe handling**

**Handling** Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

**Conditions for safe storage, including any incompatibilities**

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

**Incompatible Products** Strong oxidizing agents.

## EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**

| Chemical Name     | ACGIH TLV         | OSHA PEL   | NIOSH IDLH                               |
|-------------------|-------------------|--|--|
| Formamide 75-12-7 | TWA: 10 ppm<br>S* | (vacated) TWA: 20 ppm<br>(vacated) TWA: 30 mg/m <sup>3</sup><br>(vacated) STEL: 30 ppm<br>(vacated) STEL: 45 mg/m <sup>3</sup> | TWA: 10 ppm<br>TWA: 15 mg/m <sup>3</sup> |

**Appropriate engineering controls**

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Safety glasses with side-shields. If splashes are likely to occur, wear: Goggles.

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment, work area and clothing. Contaminated work clothing should not be allowed out of the workplace.

## PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

|                       |          |                   |                          |                       |
|-----------------------|----------|-------------------|--------------------------|-----------------------|
| <b>Physical State</b> | Liquid   | <b>Appearance</b> | Transparent, Red         | <b>Odor Threshold</b> |
| <b>Odor</b>           | Odorless |                   | No information available |                       |

| <u>Property</u>                               | <u>Values</u>      | <u>Remarks/ - Method</u> |
|---|--------------------|--------------------------|
| <b>pH</b>                                     | No data available  | None known               |
| <b>Melting Point/Range</b>                    | No data available  | None known               |
| <b>Boiling Point/Boiling Range</b>            | No data available  | None known               |
| <b>Flash Point</b>                            | No data available  | None known               |
| <b>Evaporation rate</b>                       | No data available  | None known               |
| <b>Flammability (solid, gas)</b>              | No data available  | None known               |
| <b>Flammability Limits in Air</b>             |                    |                          |
| upper flammability limit                      | No data available  |                          |
| lower flammability limit                      | No data available  |                          |
| <b>Vapor Pressure</b>                         | No data available  | None known               |
| <b>Vapor Density</b>                          | No data available  | None known               |
| <b>Specific Gravity</b>                       | No data available. | None known               |
| <b>Water Solubility</b>                       | No data available  | None known               |
| <b>Solubility in other solvents</b>           | No data available  | None known               |
| <b>Partition coefficient: n-octanol/water</b> | No data available  | None known               |
| <b>Autoignition Temperature</b>               | No data available  | None known               |
| <b>Decomposition Temperature</b>              | No data available  | None known               |
| No data available                             | <b>Viscosity</b>   | None known               |
|   |                    | None known               |

|                             |                   |
|-----------------------------|-------------------|
| <b>Flammable Properties</b> | Not flammable     |
| <b>Explosive Properties</b> | No data available |
| <b>Oxidizing Properties</b> | No data available |

**Other information**

|                        |                   |
|------------------------|-------------------|
| <b>VOC Content (%)</b> | No data available |
|------------------------|-------------------|

**STABILITY AND REACTIVITY****Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

None known based on information supplied.

**TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

|                            |   |
|----------------------------|---|
| <b>Product Information</b> | There is no data available for this product   |
| <b>Inhalation</b>          | There is no data available for this product. Based on components: May be harmful if inhaled. May cause irritation of respiratory tract. |
| <b>Eye Contact</b>         | There is no data available for this product. Based on components: May cause irritation.   |
| <b>Skin Contact</b>        | There is no data available for this product. Based on components: May be harmful in contact with skin. May cause irritation.            |
| <b>Ingestion</b>           | There is no data available for this product. Based on components: May be harmful if swallowed.  |

**Component Information**

| Chemical Name         | LD50 Oral            | LD50 Dermal            | LC50 Inhalation                     |
|-----------------------|----------------------|------------------------|-------------------------------------|
| Formamide             | > 5000 mg/kg ( Rat ) | -                      | > 3900 ppm ( Rat ) 6 h              |
| Sodium lauryl sulfate | = 1288 mg/kg ( Rat ) | = 580 mg/kg ( Rabbit ) | >3900 mg/m <sup>3</sup> ( Rat ) 1 h |
| Zinc Sulfate Solution | = 1891 mg/kg (Rat)   | > 2,000 mg/kg (Rabbit) | -                                   |

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** No information available.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

|                                 |  |
|---------------------------------|--|
| <b>Sensitization</b>            | No information available.  |
| <b>Mutagenic Effects</b>        | No information available.  |
| <b>Carcinogenicity</b>          | Contains no ingredients above reportable quantities listed as a carcinogen.                |
| <b>Reproductive Toxicity</b>    | Contains a known or suspected reproductive toxin. May damage fertility or the unborn child |
| <b>STOT - single exposure</b>   | No information available.  |
| <b>STOT - repeated exposure</b> | No information available.  |
| <b>Aspiration Hazard</b>        | No information available.  |

**Numerical measures of toxicity - Product**

*The following values are calculated based on chapter 3.1 of the GHS document:*

|                    |                                      |
|--------------------|--------------------------------------|
| <b>LD50 Oral</b>   | 4173 mg/kg; Acute toxicity estimate  |
| <b>LD50 Dermal</b> | 77000 mg/kg; Acute toxicity estimate |

**ECOLOGICAL INFORMATION****Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical Name     | Toxicity to Algae  | Toxicity to Fish   | Toxicity to Microorganisms | Daphnia Magna (Water Flea)            |
|-------------------|--|--|----------------------------|---------------------------------------|
| Formamide 75-12-7 | EC50 72 h: > 500 mg/L (Desmodesmus subspicatus)<br>EC50 96 h: > 500 mg/L (Desmodesmus subspicatus) | LC50 96 h: 4600-9300 mg/L static (Leuciscus idus)<br>LC50 96 h: = 9135 mg/L static (Brachydanio rerio) | EC50 > 10000 mg/L 17 h     | EC50 48 h: > 500 mg/L (Daphnia magna) |

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Sodium lauryl sulfate<br>151-21-3 | EC50 72 h: = 53 mg/L<br>(Desmodesmus<br>subspicatus) EC50 96 h: 30<br>- 100 mg/L (Desmodesmus<br>subspicatus) EC50 96 h: =<br>117 mg/L<br>(Pseudokirchneriella<br>subcapitata) EC50 96 h:<br>3.59 - 15.6 mg/L static<br>(Pseudokirchneriella<br>subcapitata) | LC50 96 h: 8 - 12.5 mg/L<br>static (Pimephales<br>promelas) LC50 96 h: 15<br>18.9 mg/L static<br>(Pimephales promelas)<br>LC50 96 h: 22.1 - 22.8 mg/L<br>static (Pimephales<br>promelas) LC50 96 h: 4.3<br>8.5 mg/L static<br>(Oncorhynchus mykiss)<br>LC50 96 h: = 4.62 mg/L<br>flow-through (Oncorhynchus<br>mykiss) LC50 96 h: = 4.2<br>mg/L (Oncorhynchus<br>mykiss) LC50 96 h: = 7.97<br>mg/L flow-through<br>(Brachydanio rerio) LC50 96<br>h: 9.9 - 20.1 mg/L<br>semi-static (Brachydanio<br>rerio) LC50 96 h: 4.06 -<br>5.75 mg/L static (Lepomis<br>macrochirus) LC50 96 h:<br>4.2 - 4.8 mg/L flow-through<br>(Lepomis macrochirus) LC50<br>96 h: = 4.5 mg/L (Lepomis<br>macrochirus) LC50 96 h:<br>5.8 - 7.5 mg/L static<br>(Pimephales promelas)<br>LC50 96 h: 10.2 - 22.5 mg/L<br>semi-static (Pimephales<br>promelas) LC50 96 h: 6.2 -<br>9.6 mg/L (Pimephales<br>promelas) LC50 96 h: 13.5<br>18.3 mg/L semi-static<br>(Poecilia reticulata) LC50 96<br>h: 10.8 - 16.6 mg/L static<br>(Poecilia reticulata) LC50 96<br>h: = 1.31 mg/L semi-static<br>(Cyprinus carpio) | EC50 = 0.46 mg/L 30 min<br>EC50 = 0.72 mg/L 15 min<br>EC50 = 1.19 mg/L 5 min | EC50 48 h: = 1.8 mg/L<br>(Daphnia magna) |
|-----------------------------------|--|--|--|--|

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

| Chemical Name         | Log Pow |
|-----------------------|---------|
| Formamide             | -0.82   |
| Sodium lauryl sulfate | 1.6     |

**Other Adverse Effects**

No information available.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

|                        |               |
|------------------------|---------------|
| <b><u>DOT</u></b>      | Not regulated |
| <b><u>TDG</u></b>      | Not regulated |
| <b><u>MEX</u></b>      | Not regulated |
| <b><u>ICAO</u></b>     | Not regulated |
| <b><u>IATA</u></b>     | Not regulated |
| <b><u>IMDG/IMO</u></b> | Not regulated |
| <b><u>RID</u></b>      | Not regulated |
| <b><u>ADR</u></b>      | Not regulated |
| <b><u>ADN</u></b>      | Not regulated |

## 15. REGULATORY INFORMATION

### **International Inventories**

|             |   |
|-------------|---|
| <b>TSCA</b> | This product contains ingredients which are not listed on the TSCA Inventory. It is for research and development purposes only. |
| <b>DSL</b>  | Not determined  |

### **Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

### **U.S. Federal Regulations**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

### **SARA 311/312 Hazard Categories**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | No |
| <b>Chronic Health Hazard</b>             | No |
| <b>Fire Hazard</b>                       | No |
| <b>Sudden Release of Pressure Hazard</b> | No |
| <b>Reactive Hazard</b>                   | No |

### **Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### **U.S. State Regulations**

#### **California Proposition 65**



This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Illinois | Rhode Island |
|---------------|------------|---------------|--------------|----------|--------------|
| Formamide     | X          | X             | X            |          | X            |

### U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

### 16. OTHER INFORMATION

|             |                  |                |                   |                                 |
|-------------|------------------|----------------|-------------------|---------------------------------|
| <b>NFPA</b> | Health Hazard 1  | Flammability 0 | Instability 0     | Physical and Chemical Hazards - |
| <b>HMIS</b> | Health Hazard 1* | Flammability 0 | Physical Hazard 0 | Personal Protection X           |

#### Prepared By

Product Stewardship  
23 British American Blvd.  
Latham, NY 12110 1-800-572-  
6501

#### Revision Date

03-Jul-2014

#### Revision Note

No information available.

### General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of Safety Data Sheet**