1 Identification of the substances/mixture and of the company/undertaking

1.1 Product Identifiers
- Product Number: ML048
- Product Name: 5X RNA Loading Buffer
- REACH Registration Number: Reach registration number is not available for this mixture. The annual tonnage does not require a REACH registration or it is envisaged for a later registration deadline.

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

1.2.1 Relevant identified uses
- Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
- Produced by: HiMedia Laboratories Private Limited
- Address: 23, Vadhani Industrial Estate, LBS Marg, Ghatkopar (W), Mumbai - 400 086 India
- Tel. No.: +91-22-2500 0970, +91-22-2500 1607
- Fax No.: +91-22-25002468
- Mail Id: mb@himedialabs.com
- Website: www.himedialabs.com

1.4 Emergency Tel. No.
- Emergency Tel. No.: Please contact the regional HiMedia representation in your country

2 Hazards Identification

2.1 Classification of the substance or mixture

CLP Classification-Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
- Acute toxicity, Oral, (Category 3), H301
- Acute toxicity, Dermal, (Category 3), H311
- Acute toxicity, Inhaled, (Category 3), H331
- Skin corrosion or irritation, (Category 1B), H314
- Sensitisation, Skin, (Category 1), H317
- Specific target organ toxicity, single exposure, Respiratory tract irritation, (Category 3), H335
- Germ cell mutagenicity, (Category 2), H341
- Carcinogenicity, (Category 1B), H350
- Specific target organ toxicity, single exposure, (Category 1), H370

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

Pictogram
Signal word: Danger

Hazard Statement(s)
- H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H335 May cause respiratory irritation
H341 Suspected of causing genetic defects
H350 May cause cancer
H370 Causes damage to organs

Precautionary Statement(s)
P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P330 IF SWALLOWED : Immediately call a POISON CENTER/doctor. Rinse mouth.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340+P310 IF INHALED : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other Hazards
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.

3 Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde, 37% For Molecular Biology</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1 - &lt;=5%</td>
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<tr>
<td>CAS No. :</td>
<td>50-00-0</td>
<td></td>
</tr>
<tr>
<td>EC No. :</td>
<td>200-001-8</td>
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<tr>
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<td>605-001-00-5</td>
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<tr>
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<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formamide (Liquid) For Molecular Biology</td>
<td>As Per EC Regulation 1272/2008</td>
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<tr>
<td>CAS No. :</td>
<td>75-12-7</td>
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<td>EC No. :</td>
<td>200-842-0</td>
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<tr>
<td>Index- No :</td>
<td>616-052-00-8</td>
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Molecular Formula : $\text{CONH}_3$
Molecular Weight : 45.04

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<th>Concentration</th>
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<td>&gt;=1 - &lt;=5%</td>
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<td>CAS No. : 1132-61-2</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3</td>
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<tr>
<td>EC No. : 214-478-5</td>
<td>H315; H319; H335</td>
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<td>Molecular Formula : $\text{C}<em>7\text{H}</em>{15}\text{NO}_4\text{S}$</td>
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</tr>
<tr>
<td>Molecular Weight : 209.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 First Aid Measures
4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.
If swallowed
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
The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.
4.3 Indication of immediate medical attention and special treatment needed
Treat symptomatically.

5 Fire Fighting Measures
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media
No data available.
5.2 Special hazards arising from the substance or mixture
Carbon oxides, nitrogen oxides (NOx), Sulphur oxides
5.3 Precautions for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary
5.4 Further information
No data available
6  Accidental Release Measures
6.1  Personal precautions, protective equipment and emergency procedures
Use personnel protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.
6.2  Environmental precautions
No special environmental precautions required.
6.3  Methods and materials for containment and cleaning up
Soak up with inert adsorbent 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.

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. Storage class (TRGS 510): Non Combustible Liquids

Recommended Storage Temperature : 2 - 8°C
7.3  Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8  Exposure Controls/Personal Protection
8.1  Control parameters
Components with workplace control parameters
8.2  Exposure controls
Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

Personal protective equipment
Hygiene measure
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection
Tightly fitting safety goggles; Faceshield (8-inch minimum). 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 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

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).

**Environment exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### 9  Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
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<tr>
<td>Odour</td>
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</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
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<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting/freezing point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Flash point</td>
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</tr>
<tr>
<td>Evaporation rate</td>
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<td>Flammability (Solid, gas)</td>
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<tr>
<td>Vapour pressure</td>
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<td>Relative density</td>
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<tr>
<td>Water Solubility</td>
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<td>Autoignition Temperature</td>
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<tr>
<td>Decomposition Temperature</td>
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<tr>
<td>Viscosity</td>
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</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
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<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
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<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
</tbody>
</table>

#### 9.2 Other safety information

No data available

### 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

No data available

#### 10.4 Conditions to avoid

No data available

#### 10.5 Incompatible materials

Strong oxidizing agents

#### 10.6 Hazardous decomposition products

In the event of fire. Refer section 5
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

*Aspiration hazard*
No data available

** Additional Information**
RTECS : Not Applicable

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 PBT and vPvB assessment
No data available

12.6 Other adverse effects
No data available

13 Disposal Considerations
13.1 Waste treatments methods

*Product*
Offer surplus and non-recyclable solutions to a licenced disposal company.

13.2 Contaminated packaging
14 **Transport Information**

14.1 **UN-No**
- ADNR : Not dangerous goods
- ADR : Not dangerous goods
- IATA_C : Not dangerous goods
- IATA_P : Not dangerous goods
- IMDG : Not dangerous goods
- RID : Not dangerous goods

14.2 **UN proper shipping name**
- ADNR : Not dangerous goods
- ADR : Not dangerous goods
- IATA_C : Not dangerous goods
- IATA_P : Not dangerous goods
- IMDG : Not dangerous goods
- RID : Not dangerous goods

14.3 **Transport hazard class(es)**
- ADNR : -
- ADR : -
- IATA_C : -
- IATA_P : -
- IMDG : -
- RID : -

14.4 **Packaging group**
- ADNR : -
- ADR : -
- IATA_C : -
- IATA_P : -
- IMDG : -
- RID : -

14.5 **Environmental hazards**
- ADNR : No
- ADR : No
- IMDG : Marine pollutant : no
- IATA_C : No
- IATA_P : No
- RID : No

14.6 **Special precautions for use**
No data available

15 **Regulatory Information**

15.1 **Safety health and environment regulations/legislation specific for the substance or mixture**
No data available

15.2 **Chemical Safety Assessment**
No data available

16 **Other information**

- **H301** Toxic if swallowed
- **H311** Toxic in contact with skin
- **H314** Causes severe skin burns and eye damage
- **H315** Causes skin irritation
- **H317** May cause an allergic skin reaction
- **H319** Causes serious eye irritation
- **H331** Toxic if inhaled
- **H335** May cause respiratory irritation
- **H351** Suspected of causing cancer
- **H360D** May damage the unborn child
- **H370** Causes damage to organs

**Acute Tox. dermal. 3** Acute toxicity, dermal, Category 3
**Acute Tox. inhal. 3** Acute toxicity, inhaled, Category 3
**Acute Tox.oral. 3** Acute toxicity, oral, Category 3
<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinogenicity, Category 2</td>
<td>Carc. 2</td>
</tr>
<tr>
<td>Serious eye damage or eye irritation, Category 2A</td>
<td>Eye Irrit. 2A</td>
</tr>
<tr>
<td>Reproductive toxicity, Category 1A, 1B</td>
<td>Repr.Tox. 1A, 1B</td>
</tr>
<tr>
<td>Skin corrosion or irritation, Category 1A</td>
<td>Skin Corr. 1A</td>
</tr>
<tr>
<td>Skin corrosion or irritation, Category 2</td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td>Sensitisation, Skin, Category 1</td>
<td>Skin Sens. 1</td>
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<tr>
<td>Specific target organ toxicity, single exposure, Category 1</td>
<td>STOT SE 1</td>
</tr>
<tr>
<td>Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3</td>
<td>STOT SE 3</td>
</tr>
</tbody>
</table>

**Further Information**

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