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

1.1 Product Identifiers
Product Number ML123
Product Name Silver Staining Kit
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]
Skin corrosion or irritation, (Category 2), H315
Sensitisation, Skin, (Category 1), H317
Serious eye damage or eye irritation, (Category 2A), H319
Sensitisation, respiratory, (Category 1), H334
Specific target organ toxicity, single exposure, Respiratory tract irritation, (Category 3), H335
Hazardous to the aquatic environment, long term hazard, (Category 1), H410

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

Pictogram
Signal word Danger
Hazard Statement(s)
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335  May cause respiratory irritation  
H410  Very toxic to aquatic life with long lasting effects  

Precautionary Statement(s)  
P261  Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273  Avoid release to the environment.  
P280  Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338  IF IN EYES:  Rinse cautiously with water for several minutes.  Remove contact lenses, if present and easy to do.  Continue rinsing.  
P342 + P311  IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.  

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>
</table>
| Glutaraldehyde solution, 25% w/w, For Molecular Biology | As Per EC Regulation 1272/2008  
Acute Tox. oral 4; Skin Corr. 1B; Skin Sens. 1; Resp. Sens. 1; STOT SE 3;  
Aquatic Acute 1; Aquatic Chronic 2  
H302+H332; H314; H334; H335; H400; H411 | >=1 - <=5% |
| CAS No. : 111-30-8  
EC No. : 203-856-5  
Molecular Formula : C₅H₈O₂  
Molecular Weight : 100.12 | | |

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| Silver nitrate, For Molecular Biology | As Per EC Regulation 1272/2008  
Ox. Liq. 2; Skin Corr. 1A; Aquatic Chronic 1  
H272; H314; H410 | >=1 - <=5% |
| CAS No. : 7761-88-8  
EC No. : 231-853-9  
Molecular Formula : AgNO₃  
Molecular Weight : 169.87 | | |

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| Formaldehyde sol., 37% For Molecular Biology | As Per EC Regulation 1272/2008  
Acute Tox. oral. 3; Acute Tox. dermal. 3; Skin Corr. 1A; Skin Sens. 1; Acute Tox. inhal. 3; STOT SE 3; Carc. 2; STOT SE 1  
H301; H311; H314; H317; H331; H335; H351; H370 | >=0.1 - <=3% |
| CAS No. : 50-00-0  
EC No. : 200-001-8  
Molecular Formula : CH₂O  
Molecular Weight : 30.03 | | |
**Component** | **Classification** | **Concentration**
--- | --- | ---
Sodium carbonate anhydrous, For Molecular Biology | As Per EC Regulation 1272/2008 | >= - <=100%

**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, Silver/silver 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).

9  Physical and chemical properties

9.1  Information on basic physical and chemical properties

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

No data available

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
Dispose of as unused product.
14  Transport Information
14.1  UN-No
ADNR  :  3316  ADR  :  3316  IATA_C  :  3316  IATA_P  :  3316  IMDG  :  3316  RID  :  3316

14.2  UN proper shipping name
ADNR  :  Chemical kit or First Aid kit containing dangerous goods
ADR  :  Chemical kit or First Aid kit containing dangerous goods
IATA_C  :  Chemical kit or First Aid kit containing dangerous goods
IATA_P  :  Chemical kit or First Aid kit containing dangerous goods
IMDG  :  Chemical kit or First Aid kit containing dangerous goods
RID  :  Chemical kit or First Aid kit containing dangerous goods

14.3  Transport hazard class(es)
ADNR  :  9  ADR  :  9  IATA_C  :  9  IATA_P  :  9  IMDG  :  9  RID  :  9

14.4  Packaging group
ADNR  : II  ADR  : II  IATA_C  : II  IATA_P  : II  IMDG  : II  RID  : II

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

H272  May intensify fire; oxidizer
H301  Toxic if swallowed
H302+H332  Harmful if swallowed or if inhaled
H311  Toxic in contact with skin
H314  Causes severe skin burns and eye damage
H317  May cause an allergic skin reaction
H319  Causes serious eye irritation
H331  Toxic if inhaled
H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335  May cause respiratory irritation
H351  Suspected of causing cancer
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H370</td>
<td>Causes damage to organs</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>Acute Tox. dermal. 3</td>
<td>Acute toxicity, dermal, Category 3</td>
</tr>
<tr>
<td>Acute Tox. inhal. 3</td>
<td>Acute toxicity, inhaled, Category 3</td>
</tr>
<tr>
<td>Acute Tox. oral 4</td>
<td>Acute toxicity, oral, Category 4</td>
</tr>
<tr>
<td>Acute Tox. oral 3</td>
<td>Acute toxicity, oral, Category 3</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment, acute hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 2</td>
</tr>
<tr>
<td>Carc. 2</td>
<td>Carcinogenicity, Category 2</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage or eye irritation, Category 2A</td>
</tr>
<tr>
<td>Ox. Liq. 2</td>
<td>Oxidising liquids, Category 2</td>
</tr>
<tr>
<td>Resp. Sens. 1</td>
<td>Sensitisation, respiratory, Category 1</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion or irritation, Category 1A</td>
</tr>
<tr>
<td>Skin Corr. 1B</td>
<td>Skin corrosion or irritation, Category 1B</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Sensitisation, Skin, Category 1</td>
</tr>
<tr>
<td>STOT SE 1</td>
<td>Specific target organ toxicity, single exposure, Category 1</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3</td>
</tr>
</tbody>
</table>

**Further Information**

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