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

1.1 Product Identifiers
Product Number
Product Name
REACH Registration Number

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

1.2.1 Relevant identified uses
Laboratory Chemicals, Analytical Purpose, Biochemical Analysis
For InVitro Diagnostic Use

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 info@himedialabs.com
Website : www.himedialabs.com

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

Hazards Identification

2.1 Classification of the substance or mixture
CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]
Flammable liquids, (Category 2), H225
Acute toxicity, Oral, (Category 4), H302
Serious eye damage or eye irritation, (Category 1), H318
Carcinogenicity, (Category 2), H351

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

Pictogram
Signal word Danger
Hazard Statement(s)
H225 Highly flammable liquid and vapour
H302 Harmful if swallowed
H318 Causes serious eye damage
H351 Suspected of causing cancer
Precautionary Statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
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.

2.3 Other Hazards
None

3 Composition/Information On Ingredients
3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=50.0 - &lt;=60.0%</td>
</tr>
<tr>
<td>CAS No. : 64-17-5</td>
<td>Flam. Liq. 2; Eye Irrit. 2A H225; H319</td>
<td></td>
</tr>
<tr>
<td>EC No. : 200-578-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index-No : 603-002-00-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Tetrachloroethane          | As Per EC Regulation 1272/2008           | >=40.0 - <=50.0%    |
| CAS No. : 79-34-5          | H310+H330; H411                          |                     |
| EC No. : 201-197-8         |                                          |                     |

| Glacial acetic acid        | As Per EC Regulation 1272/2008           | >=1.0 - <=5.0%      |
| CAS No. : 64-19-7          | Flam. Liq. 3; Skin Corr. 1A H226; H314   |                     |
| EC No. : 200-580-7         |                                          |                     |
| Index-No : 607-002-00-6    |                                          |                     |

| Methylene blue chloride    | As Per EC Regulation 1272/2008           | >=0.1 - <=1.0%      |
| CAS No. : 61-73-4          | Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A H302; H315; H319 |                     |

Refer Section 16 for complete statement of H codes & classification.

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 with plenty of soap and 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
No data available.

4.3 Indication of immediate medical attention and special treatment needed
No data available.

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, Hydrogen chloride gas

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
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

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

6.3 Methods of containment and cleaning up
Soak up with inert absorbent material. 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. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**Recommended Storage Temperature**: On receipt store between 10-30°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**
Do not empty into drains.

### 9 Physical and chemical properties

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark blue coloured clear solution</td>
</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>
</tbody>
</table>
9.2 Other safety information
No data available

10 Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
No data available

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
Heat, flames and sparks.

10.5 Incompatible materials
Strong oxidizing agents

10.6 Hazardous decomposition products
Refer Section 5.2

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

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

*Potential Health Effects*

*Inhalation*
REFER SECTION 2

*Skin*
REFER SECTION 2

*Eyes*
REFER SECTION 2

*Ingestion*
REFER SECTION 2

11.2 Components

*Tetrachloroethane*

*Acute oral toxicity*
Rat LD50: 250 mg/kg (RTECS)

*Acute inhalation toxicity*
No data available

*Acute dermal toxicity*
Rabbit LD50: 3.990 mg/kg (RTECS)

*Acute intraperitoneal toxicity*
Mouse LD50: 821 mg/kg (RTECS)

*Skin irritation*
Rabbit Result: Severe irritations

*Eye irritation*
Lacrimal irritation due to vapours

*Sensitisation*
No data available

*Ames test*
No data available

*Genetic toxicity (in-vitro)*
Chromosome aberration Result: Negative

*Genetic toxicity (in-vitro)*
Micronucleus test Result: Positive

*Carcinogenicity*
No data available

*Toxicity to Reproduction*
No data available

*Teratogenicity*
No data available

*Additional information:*
RTECS: KI8575000
Glacial acetic acid

Acute oral toxicity
Mouse LD50: 4,960 mg/kg (ECHA)

Skin irritation
Rabbit Result: Irritations (As Per OECD Test Guideline 404)

Eye irritation
Rabbit Result: Irritant (As Per OECD Test Guideline 405)

Sensitisation
No data available

Ames test
Salmonella Typhimurium
Result: Negative (As Per OECD Test Guideline 471)

Mutagenicity (mammal cell test)
Micronucleus assay
Result: Negative (As Per EU Method B.12)

Carcinogenicity
No data available

Toxicity to Reproduction
No data available

Teratogenicity
No data available

Additional information:
RTECS AF1225000

Ethanol (Ethyl alcohol)

Acute oral toxicity
Rat LD50: 10,470 mg/kg
(As Per OECD Test Guideline 401)

Acute inhalation toxicity
Rat LC50: 124.7 mg/l; 4 h; Vapour
(As Per OECD Test Guideline 403)

Acute dermal toxicity
No data available

Skin irritation
Rabbit Result: Non Irritant
(As Per OECD Test Guideline 404)

Eye irritation
Rabbit Result: Eye irritation
(As Per OECD Test Guideline 405)

Sensitisation
Result: Negative
(As Per IUCLID)

Ames test
Salmonella Typhimurium
Result: Negative
(As Per OECD Test Guideline 471)

Additional information:
RTECS: KQ6300000

Methylene blue chloride
Acute oral toxicity
No data available
Acute inhalation toxicity
No data available
Acute dermal toxicity
No data available
Skin irritation
No data available
Eye irritation
No data available
Sensitisation
No data available
Ames test
No data available
Mutagenicity (mammal cell test)
No data available
Carcinogenicity
No data available
Toxicity to Reproduction
No data available
Teratogenicity
No data available

Additional information:
RTECS: SO5600000

12 Ecological Information
12.1 Toxicity
No data available
Components:
Tetrachloroethane
Toxicity to fish
Pimephales promelas (fathead minnow) LC50: 20.3 mg/l; 96 h
Toxicity to daphnia and other aquatic invertebrates

Page 8 of 11
Daphnia magna (Water flea) EC50: 23 mg/l; 48 h
**Toxicity to algae**
Pseudokirchneriella subcapitata (green algae) EC50: 76.9 mg/l; 72 h
**Components:**
Glacial acetic acid
**Toxicity to fish**
Oncorhyncus mykiss (Rainbow trout) LC50: 108 mg/L; 96 h (As per OECD Guideline 203)
**Toxicity to aquatic invertebrates**
Daphnia magna (Water flea) EC50: 79.5 mg/L; 48 h (As per OECD Guideline 202)
**Toxicity to aquatic algae and cyanobacteria**
Skeletonoma costatum EC50: >300.82 mg/L; 72 h (As per ISO 10253)

**Component:**
Ethanol (Ethyl alcohol)
**Toxicity to fish**
Leuciscus idus (Golden orfe) LC50: 8,140 mg/L; 48 h
(As Per IUCLID)
Pimephales promelas (fathead minnow) LC50: 14,200 mg/L; 96 h
**Toxicity to daphnia and other aquatic invertebrates**
Daphnia magna (Water flea) EC50: 9,268-14,221 mg/L; 48 h
(As Per IUCLID)
Daphnia magna (Water flea) NOEC: 9.6 mg/L; 9d
**Toxicity to algae**
Scenedesmus quadricauda (Green algae) IC50: 5,000 mg/L; 7d
Chlorella vulgaris (Fresh water algae) EC50: 275 mg/L; 72 h
(As Per OECD Test Guideline 201)
**Toxicity to bacteria**
Pseudomonas putida EC50: 6,500 mg/L; 16 h
(As Per IUCLID)
**Components:**
Methylene blue
**Toxicity to fish**
Pimephales promelas (fathead minnow) LC50: 45 mg/L; 96 h
**Toxicity to daphnia and other aquatic invertebrates**
Daphnia magna (Water flea) EC50: 2,260 mg/L; 48 h

### 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
This preparation contains no substance considered to be persistent, bioaccumulating or toxic (PBT) at levels of 0.1% or higher.

### 12.6 Other adverse effects
Discharge into the environment must be avoided.
13 Disposal Considerations
13.1 Waste treatments methods
   Product
   Offer surplus and non-recyclable solutions to a licenced disposal company. Contact a licenced
   professional waste disposal service to dispose off this material.

13.2 Contaminated packaging
   Dispose of as unused product.

14 Transport Information
14.1 UN-No

14.2 UN proper shipping name
   ADNR : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy
   ADR : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy
   IATA_C : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy
   IATA_P : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy
   IMDG : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy
   RID : Ethanol (Ethyl alcohol) or Ethanol solution (Ethy

14.3 Transport hazard class(es)
   ADNR : 3  ADR : 3  IATA_C : 3  IATA_P : 3  IMDG : 3  RID : 3

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
   This safety datasheet complies with the requirements of Regulation(EC) No. 1907/2006.

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
Text of H codes and classification mentioned in section 3

H225    Highly flammable liquid and vapour
H226    Flammable liquid and vapour
H302    Harmful if swallowed
H310+H330    Fatal in contact with skin or if inhaled
H314    Causes severe skin burns and eye damage
H315    Causes skin irritation
H319    Causes serious eye irritation
H411    Toxic to aquatic life with long lasting effects
Acute Tox.oral 4    Acute toxicity, oral, Category 4
Eye Irrit. 2A    Serious eye damage or eye irritation, Category 2A
Flam. Liq. 2    Flammable liquids, Category 2
Flam. Liq. 3    Flammable liquids, Category 3
Skin Corr. 1A    Skin corrosion or irritation, Category 1A
Skin Irrit. 2    Skin corrosion or irritation, Category 2

Further Information

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