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

1.1 Product Identifiers

Product Number: R006
Product Name: Folin & Wu's Alkaline Copper Solution
REACH Registration Number: This product is a mixture. Reach registration number is not available for this mixture.

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.: +91-22-2500 2468
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

2 Hazards Identification

2.1 Classification of the substance or mixture

CLP Classification - Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Hazardous to the aquatic environment, long term hazard, (Category 3), H412

2.2 Label elements

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

Hazard Statement(s)
H412 Harmful to aquatic life with long lasting effects
Precautionary Statement(s)
P273 Avoid release to the environment.

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>Sodium carbonate</td>
<td>CAS No.: 497-19-8</td>
<td>As Per EC Regulation 1272/2008 &gt;=3.00 - &lt;=4.00%</td>
</tr>
</tbody>
</table>
## Component Classification Concentration

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tartaric acid</strong></td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=7.00 - &lt;=8.00%</td>
</tr>
<tr>
<td>CAS No. :</td>
<td>133-37-9</td>
<td></td>
</tr>
<tr>
<td>EC No. :</td>
<td>205-105-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2A H319</td>
<td></td>
</tr>
</tbody>
</table>

| **Copper sulphate** | As Per EC Regulation 1272/2008              | >=4.00 - <=5.00%    |
| CAS No. :          | 7758-98-7                                   |                     |
| EC No. :           | 231-847-6                                   |                     |
|                    | Acute Tox. oral 4; Skin Irrit. 2; Eye Irrit.|                     |
|                    | 2A; Aquatic Chronic 1  H302; H315; H319;    |                     |
|                    | H410                                         |                     |

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
Nature of decomposition products unknown

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 and materials for 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>Sky 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>9.40 - 10.40</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>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>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition 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>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
No data available

#### 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**
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.

**Specific target organ toxicity - single exposure**
No data available

**Specific target organ toxicity - repeated exposure**
No data available

**Potential Health Effects**

**Inhalation**
REFER SECTION II

**Skin**
REFER SECTION II

**Eyes**
REFER SECTION II

**Ingestion**
REFER SECTION II

**Additional Information**
RTECS: VZ4050000

11.2 **Components**

**Sodium carbonate**

**Acute Oral Toxicity**
Rat LD50: 4090 mg/kg

**Acute inhalation toxicity**
Rat LC50: 5750 mg/l; 2 h

**Additional information**
RTECS: VZ4050000
**Tartaric acid**
*Acute oral toxicity*
No data available

*Acute inhalation toxicity*
No data available

*Acute dermal toxicity*
No data available

*Skin irritation*
Slight irritant

*Eye irritation*
Causes serious eye irritation

*Sensitisation*
No data available

*Ames test*
No data available

*Mutagenicity (mammal cell test)*
No data available

**Additional information:**
RTECS WW7875000

**Copper sulphate**
*Acute oral toxicity*
Rat LD50: 482 mg/kg

*Acute dermal toxicity*
Rat LD50: >2000 mg/kg

*Skin irritation*
Rabbit Result: Non irritant

*Eye irritation*
Rabbit Result: Highly irritating

*Skin sensitization*
Guinea pig Result: Non sensitizing

*Genetic toxicity (in-vitro)*
Ames test
Result: Negative (As Per OECD Test Guideline 471)

*Genetic toxicity (in-vivo)*
Mouse Micronucleus assay
Result: Negative

*Carcinogenicity*
Rat Result: Negative

*Toxicity to Reproduction*
No data available

*Teratogenicity*
No data available
12  Ecological Information
12.1  Toxicity
No data available
Components:
Sodium carbonate
Toxicity to fish
Lepomis macrochirus (bluegill) LC50: 300 mg/l; 96 h
Toxicity to daphnia
Daphnia magna (water flea) EC50: 265 mg/l; 48 h
Daphnia magna (water flea) EC50: 265 mg/l; 72 h

Components:
Tartaric acid
Toxicity
No data available
Component:
Copper sulphate
Toxicity to fish
Oncorhynchus mykiss Flow through test LC50: 200 µg/L; 96h
Toxicity to aquatic invertebrates
Daphnia magna (Water flea) Static test LC50: 7 µg/L; 48h
Toxicity to aquatic alga and cyanobacteria
Phaeodactylum tricornutum Static test EC10: 2.9 µg/L; 72h
Toxicity to terrestrial arthropods
Folsomia fimetaria EC10: 688mg/kg; 21d

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) or a very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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. 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
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

### 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
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
For this product a chemical safety assessment was not carried out.

## 16 Other information
Text of H codes and classification mentioned in section 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
<tr>
<td>Acute Tox.oral 4</td>
<td>Acute toxicity, oral, Category 4</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage or eye irritation, Category 2A</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion or irritation, Category 2</td>
</tr>
</tbody>
</table>
Further Information

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