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

1.1 Product Identifiers
Product Number: M886
Product Name: Chlorella Broth
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

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]
Oxidising solids, (Category 3), H272

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

Pictogram
Signal word: Warning
Hazard Statement(s)
H272 May intensify fire; oxidizer
Precautionary Statement(s)
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P221 Take any precaution to avoid mixing with combustibles.

2.3 Other Hazards
None
## Composition/Information On Ingredients

### 3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boric acid</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No. :</td>
<td>10043-35-3</td>
<td></td>
</tr>
<tr>
<td>EC No. :</td>
<td>233-139-2</td>
<td></td>
</tr>
<tr>
<td>Index-No :</td>
<td>005-007-00-2</td>
<td></td>
</tr>
<tr>
<td><strong>Classification</strong></td>
<td>As Per EC Regulation 1272/2008</td>
<td></td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>Repr.Tox. 1A, 1B H360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;=0.001 - &lt;=0.01%</td>
<td></td>
</tr>
</tbody>
</table>

| **Cupric sulphate** |                                                     |                       |
| CAS No. :           | 7758-98-7                                          |                       |
| EC No. :            | 231-847-6                                          |                       |
| **Classification**  | As Per EC Regulation 1272/2008                     |                       |
| **Concentration**   | Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A H302; H315; H319 |                       |
|                   | >=0.0001 - <=0.001%                                |                       |

| **Ferrous sulphate** |                                                     |                       |
| CAS No. :           | 7720-78-7                                          |                       |
| EC No. :            | 231-753-5                                          |                       |
| Index-No :          | 026-003-00-7                                       |                       |
| Molecular Formula : | FeSO$_4$                                            |                       |
| **Classification**  | As Per EC Regulation 1272/2008                     |                       |
| **Concentration**   | Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A H302; H315; H319 |                       |
|                   | >=0.001 - <=0.01%                                   |                       |

| **Manganese sulphate** |                                                     |                       |
| CAS No. :              | 7785-87-7                                          |                       |
| EC No. :               | 232-089-9                                          |                       |
| **Classification**     | As Per EC Regulation 1272/2008                     |                       |
| **Concentration**      | STOT RE 2; Aquatic Chronic 2 F373; H411             |                       |
|                       | >=0.001 - <=0.01%                                   |                       |

| **Potassium nitrate** |                                                     |                       |
| CAS No. :             | 7757-79-1                                          |                       |
| EC No. :              | 231-818-8                                          |                       |
| **Classification**    | As Per EC Regulation 1272/2008                     |                       |
| **Concentration**     | Ox. Sol. 3 F272                                    |                       |
|                       | >=10.0 - <=20.0%                                    |                       |

| **Zinc sulphate**     |                                                     |                       |
| CAS No. :             | 7446-19-7                                          |                       |
| EC No. :              | 231-793-3                                          |                       |
| **Classification**    | As Per EC Regulation 1272/2008                     |                       |
| **Concentration**     | Eye Dam. 1; Aquatic Chronic 1 F318; H318; H410     |                       |
|                       | >=0.001 - <=0.01%                                   |                       |

Refer Section 16 for complete statement of H codes and its 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, Sulphur oxides, Magnesium oxide, Potassium oxides, Oxides of phosphorus, Nitrogen oxides (NOx),

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 2016/425/EEC and the standard EN ISO 374-1/2016 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

*Appearance*  White to Cream coloured homogenous free
flowing powder

Odour
Odour Threshold
pH
Melting/freezing point
Initial boiling point and boiling range
Flash point
Flammability (Solid, gas)
Vapour pressure
Relative density
Water Solubility
Partition coefficient: n-octanol/water
Autoignition Temperature
Viscosity
Explosive properties
Oxidizing properties
Vapour density
Thermal decomposition

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

Refer Section 5.2
**Germ cell mutagenicity**
No data available

**Carcinogenicity**
No data available

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

**Potential Health Effects**

**Inhalation**
REFER SECTION 2

**Skin**
REFER SECTION 2

**Eyes**
REFER SECTION 2

**Ingestion**
REFER SECTION 2

**Additional Information**
RTECS: No data available

11.2 Components

**Boric Acid**

*Acute Toxicity*
Rat oral LD50 : 2660 mg/kg
Rabbit dermal LD50 : 2000 mg/kg
Mouse Oral: LD50 = 3450 mg/kg.

*Additional information*
RTECS: ED4550000
Specific concentration limits (SCL): >5.5%
Boric acid is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

**Ferrous sulphate**

*Acute Oral Toxicity*
Mouse LD50: 1.520 mg/kg

*Additional Information*
RTECS: NO8510000

**Manganese sulphate**

*Acute oral toxicity*
Rat LD50 : 2,150 mg/kg
(As per IUCLID)

*Acute Dermal Toxicity*
Rat LD50: Not determined.

*Acute Inhalation Toxicity*
Rat LC50 : > 4.45 mg/l
(As per OECD Test Guideline 403)

*Additional Information*
**RTECS:** OP1050000

**Potassium nitrate**  
*Acute oral toxicity*  
Rat LD50: 3,750 mg/kg  
(As per IUCLID)  
*Acute Dermal Toxicity*  
Rat LD50: > 5000 mg/kg  
(As per OECD Test Guideline 402)  
*Acute inhalation toxicity*  
Rat LC50: > 0.527 mg/L; 4 h  
(As per OECD Test Guideline 403)  
**Additional Information**  
RTECS: TT370000

Zinc Sulphate, Heptahydrate  
*Acute Oral Toxicity*  
Rat LD50: 1,260 mg/kg (As Per RTECS)  
**Additional information**  
RTECS: ZH5300000

### 12 Ecological Information

#### 12.1 Toxicity

No data available

**Component**  
**Boric Acid**  
*Toxicity to fish*  
Gambusia affinis LC50: 5600 mg/l  
Rainbow trout LC50: 150mg B/L; 24d  
Goldfish LC50: 46mg; 7d  
*Toxicity to daphnia and other aquatic invertebrates*  
Daphnia EC50: 115 mg/l

**Components**  
**Ferrous sulphate**  
*Toxicity to fish*  
Brook trout (Salvelinus fontinalis) LC 50: 0.41 mg/l; 96h  
*Toxicity to daphnia and other aquatic invertebrates*  
Water flea (Daphnia magna) EC 50: 6.15 mg/l; 48h

**Components**  
**Manganese sulphate**  
*Toxicity to Fish*  
Onchorhynchus mykiss (Rainbow trout) LC50: 14.5 mg/l; 96h.  
Pimephales promelas (fathead minnow) LC50: 30.6 mg/l; 96 h.  
*Toxicity to daphnia and other aquatic invertebrates*  
Daphnia magna (Water flea) EC50: 8.3 mg/l; 48 h.
Acute Toxicity to Aquatic Plants
Desmodesmus subspicatus (algae) EC50  61 mg/l; 72 h
(As per OECD Test Guideline  201)

Components
Potassium nitrate

Toxicity to Fish
Bluegill (Lepomis macrochirus) LC50 :420 mg/kg; 96 h.
Western mosquitofish (Gambusia affinis) LC 50 :62 mg/kg ; 96h.
Poecilia reticulata (guppy)LC50 :191 mg/l; 96 h

Toxicity to daphnia and other aquatic invertebrates
Daphnia magna (Water flea) EC50 : 490 mg/l; 48 h
(As per IUCLID)

Components
Zinc Sulphate, Heptahydrate

Toxicity to fish
Oncorhynchus mykiss (rainbow trout) LC50: 0.1 mg/l; 96 h
(As Per ECOTOX Database)

Toxicity to algae
Scenedesmus quadricuada (green algae) IC50: 0.52 mg/l; 5 d
(As Per IUCLID)

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. 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 : 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

14.4 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
No data available

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

- H272 May intensify fire; oxidizer
- H302 Harmful if swallowed
- H315 Causes skin irritation
- H318 Causes serious eye damage
- H319 Causes serious eye irritation
- H360 May damage fertility or the unborn child
- H373 May cause damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects
- H411 Toxic to aquatic life with long lasting effects
- Acute Tox. oral 4 Acute toxicity, oral, Category 4
- Aquatic Chronic 1 Hazardous to the aquatic environment, long term hazard, Category 1
- Aquatic Chronic 2 Hazardous to the aquatic environment, long term hazard, Category 2
- Eye Dam. 1 Serious eye damage or eye irritation, Category 1
- Eye Irrit. 2A Serious eye damage or eye irritation, Category 2A
- Ox. Sol. 3 Oxidising solids, Category 3
- Repr. Tox. 1A, 1B Reproductive toxicity, Category 1A, 1B
- Skin Irrit. 2 Skin corrosion or irritation, Category 2
- STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2
Further Information

Copyright 2016 HiMedia Laboratories Pvt. Ltd.
The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.