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

1.1 Product Identifiers
- Product Number: M2002
- Product Name: Fraser Broth w/Supplement
- 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.: +91-22-25002468
- 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]*
  Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

2.2 Label elements
- *Labeling according to Regulation (EC) No.1272/2008*
  The product does not need to be labelled in accordance with EC directives or respective national laws.

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>Lithium chloride</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=10.0%</td>
</tr>
<tr>
<td>CAS No.: 7447-41-8</td>
<td>Acute Tox. oral 4; Eye Irrit. 2A; STOT SE 3; Skin Irrit. 2</td>
<td></td>
</tr>
<tr>
<td>EC No.: 231-212-3</td>
<td>H302; H319; H335; H315</td>
<td></td>
</tr>
<tr>
<td>Component</td>
<td>Classification</td>
<td>Concentration</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Nalidixic acid</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>CAS No.: 389-08-2</td>
<td>EC No.: 206-864-7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acriflavine hydrochloride (Trypaflavin)</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>CAS No.: 8063-24-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferric ammonium citrate</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=1.0%</td>
</tr>
<tr>
<td>CAS No.: 1185-57-5</td>
<td>EC No.: 214-686-6</td>
<td></td>
</tr>
</tbody>
</table>

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 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
   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, nitrogen oxides (NOx), Hydrogen chloride gas, Sodium oxides, Oxides of phosphorus, Potassium oxides, Lithium 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**
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 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. 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 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 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.

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**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>Cream to yellow coloured homogeneous free flowing powder</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>7.00 - 7.40</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**
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

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

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
Lithium chloride
Acute oral toxicity
Rat LD50: 526 mg/kg (As per RTECS)

Acute inhalation toxicity
Rat LC50: >5.57 mg/l; 4 h; aerosol
(As per OECD Test Guideline 403)

Acute dermal toxicity
Rat LD50: >2.000 mg/kg
(As per OECD Test Guideline 403)

Skin irritation
Rabbit
Result: Irritations (As per IUCLID)

Eye irritation
Rabbit
Result: Eye irritation (As per IUCLID)

Germ cell mutagenicity
Genotoxicity in vitro
Ames test
Result: Negative

Additional Information:
RTECS: OJ5950000

Nalidixic acid
Acute Oral Toxicity
Rat LD50: 2040 mg/kg
Mouse LD50: 572 mg/kg

Acute Intraperitoneal Toxicity
Rat LD50: 319 mg/kg
Mouse LD50: 600 mg/kg

Acute Intravenous Toxicity
Rat LD50: 1160 mg/kg
Mouse LD50: 101 mg/kg

Acute Dermal Toxicity
Rat LD50: 1584 mg/kg
Mouse LD50: 500 mg/kg

Additional Information
RTECS: QN2885000

Acriflavine Hydrochloride
Acute Oral Toxicity
Rat LD50: 1,048 mg/kg

Skin corrosion/irritation
Skin - Rabbit
Result: No irritation

Serious eye damage/eye irritation
Rabbit: Causes serious eye irritation

**Additional information**
RTECS: No data available
Causes cardiovascular effects, Central nervous system depression, Respiratory disorders

**Ferric ammonium citrate**
*Acute Oral Toxicity*
RatLD50: >2000 mg/kg

*Acute Potential Health Effects*
**Skin**
Contact may cause irritation or rash, particularly with moist skin.

**Eyes**
May cause eye irritation with redness, tearing, and abrasion.

**Inhalation**
Inhalation of high concentrations of dust may cause nasal, throat or lung irritation. Symptoms may include coughing and wheezing.

**Ingestion**
Ingestion can produce gastrointestinal tract irritation with hyper motility, diarrhea.

*Chronic Potential Health Effects*

**Eyes**
Prolonged eye contact may cause a brownish discoloration of the eyes.

**Skin**
Prolonged skin contact may cause skin irritation.

**Additional information:**
RTECS: GE7540000

---

12 Ecological Information

12.1 Toxicity
No data available

**Components:**

**Lithium Chloride**
*Toxicity to Fish*
LC50 Oncorhynchus mykiss (rainbow trout): 158 mg/l; 96 h (Static test, As per OECD Test Guideline 203)

*Toxicity to Daphnia*
EC50 Daphnia magna (water flea): 249 mg/l; 48 h (Static test, As per OECD Test Guideline 202)

*Toxicity to Algae*
EC50 Desmodesmus subspicatus (green algae):
Static test > 400 mg/l; 72 h (Static test, As per OECD Test Guideline 201)

**Components**

**Acriflavine hydrochloride**
*Toxicity to Fish*
Leuciscus idus (Golden orfe) LC50: 1 - 10 mg/l; 48 h
Bluegill/Sunfish LC50: 13.5 mg/l; 48 h
Rainbow trout LC50: 19.9 mg/l; 48 h

Ammonium Ferric Citrate
Eco 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
This substance or mixture contains no components considered to be persistent, bioaccumulating nor toxic (PBT) 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 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
14.6 Special precautions for use
No data available

15 Regulatory Information
This safety data sheet 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

H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H411 Toxic to aquatic life with long lasting effects
Acute Tox. oral 4 Acute toxicity, oral, Category 4
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
Skin Irrit. 2 Skin corrosion or irritation, Category 2
STOT SE 3 Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

Further Information

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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.