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

1.1 Product Identifiers
Product Number M1561
Product Name BAT Medium
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

2 Hazards Identification
2.1 Classification of the substance or mixture
CLP Classification-Regulation (EC) No. 1272/2008[EUGHS/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.

3 Composition/Information On Ingredients
3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
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<tbody>
<tr>
<td>Boric acid</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></td>
<td>As Per EC Regulation 1272/2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repr.Tox. 1A, 1B H360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;=0.0001 - &lt;=0.001%</td>
<td></td>
</tr>
</tbody>
</table>

Component  Classification  Concentration

Page 1 of 10
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

Refer Section 16 for complete statement of H codes and its classification.
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, Calcium oxides, Sodium oxides, Hydrogen chloride gas, Potassium oxides, Oxides of phosphorus, Sulphur 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 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

<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>3.80 - 4.20</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>
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</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
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</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
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

**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)

**Calcium chloride**

*Acute oral toxicity*

Rat LD50 : 1,000 mg/kg  
(As per IUCLID)

*Acute dermal toxicity*

Rat LD50 : 2,630 mg/kg  
(As per IUCLID)

*Skin irritation*

Rabbit  
Result : No irritation  
(As per OECD Test Guideline 404)

*Eye irritation*

Rabbit  
Result: Eye irritation  
(As per OECD Test Guideline 405)  
Causes serious eye irritation.

*Additional Information*

RTECS: EV9800000

**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

**Additional information:**
RTECS: GL8800000

*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

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
Calcium chloride
Toxicity to fish
Lepomis macrochirus (Bluegill sunfish) LC50 : 10,650 mg/l; 96 h
(As per IUCLID)
Toxicity to daphnia and other aquatic invertebrates
Daphnia magna (Water flea) EC50 : 144 mg/l; 48 h
(As per IUCLID)
Toxicity to algae
Algae IC50 : 3,130 mg/l; 120 h
(As per IUCLID)

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

Components
Manganese sulphate
Toxicity to Fish
Oncorhynchus 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
Zinc Sulphate, Heptahydrate
Toxicity to fish
Oncorhynchus mykiss (rainbow trout)LCS0: 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

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<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>12.4</td>
<td><strong>Mobility in soil</strong>&lt;br&gt;No data available</td>
</tr>
<tr>
<td>12.5</td>
<td><strong>PBT and vPvB assessment</strong>&lt;br&gt;This substance or mixture contains no components considered to be persistent, bioaccumulating nor toxic (PBT) at levels of 0.1% or higher.</td>
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<tr>
<td>12.6</td>
<td><strong>Other adverse effects</strong>&lt;br&gt;No data available</td>
</tr>
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</table>

### 13 Disposal Considerations

#### 13.1 Waste treatments methods

**Product**<br>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

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<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
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<tr>
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#### 14.2 UN proper shipping name

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<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
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</thead>
<tbody>
<tr>
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#### 14.3 Transport hazard class(es)

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<th>IATA_P</th>
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#### 14.4 Packaging group

<table>
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<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
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#### 14.5 Environmental hazards

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<th>ADNR</th>
<th>ADR</th>
<th>IMDG</th>
<th>Marine Pollutant</th>
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</tbody>
</table>

#### 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
### Other information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child</td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure</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. 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>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 2</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage or eye irritation, Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2A</td>
<td>Serious eye damage or eye irritation, Category 2A</td>
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<td>Reproductive toxicity, Category 1A, 1B</td>
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<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion or irritation, Category 2</td>
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<tr>
<td>STOT RE 2</td>
<td>Specific target organ toxicity, repeated exposure, Category 2</td>
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<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes and skin.</td>
</tr>
<tr>
<td>R50/53</td>
<td>Very toxic to aquatic organisms, may cause long-term adverse. Effects in the aquatic environment.</td>
</tr>
</tbody>
</table>

### 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.