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

1.1 Product Identifiers
Product Number  M1592
Product Name  Bolton Broth Base
REACH Registration Number  This product is a mixture. REACH registration is not applicable for this product.

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[EU-GHS/CLP]
Serious eye damage or eye irritation, (Category 1), H318

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

Pictogram
Signal word  Danger
Hazard Statement(s)
H318  Causes serious eye damage
Precautionary Statement(s)
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.
P337 + P313  IF eye irritation persists: Get medical advice/attention.

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>Sodium metabisulphite</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=3.0%</td>
</tr>
<tr>
<td>CAS No. : 7681-57-4</td>
<td>Acute Tox. oral 4; Eye Dam. 1</td>
<td></td>
</tr>
<tr>
<td>EC No. : 231-673-0</td>
<td>H302; H318</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=10.0%</td>
</tr>
<tr>
<td>CAS No. : 497-19-8</td>
<td>Eye Irrit. 2A</td>
<td></td>
</tr>
<tr>
<td>EC No. : 207-838-8</td>
<td>H319</td>
<td></td>
</tr>
<tr>
<td>Index-No : 011-005-00-2</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>alpha-Ketoglutaric acid</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=3.0%</td>
</tr>
<tr>
<td>CAS No. : 328-50-7</td>
<td>Skin Irrit. 2; Eye Dam. 1; STOT SE 3</td>
<td></td>
</tr>
<tr>
<td>EC No. : 206-330-3</td>
<td>H315; H318; H335</td>
<td></td>
</tr>
</tbody>
</table>

### 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. Wash out mouth with water. Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed
The known symptoms and effects are described in section 2.2

#### 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
Water, Foam, Carbon dioxide (CO2), Dry powder

Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Sulphur oxides, Hydrogen chloride gas, Sodium 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 formation of dust and aerosols. Provide appropriate exhaust ventilation, where dust is formed. For precautions see section 2.2

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 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>Light yellow to brownish yellow coloured homogenous 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>7.20 - 7.60</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>Evaporation rate</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>Decomposition 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
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
Ingestion
REFER SECTION 2
Additional Information
RTECS: Not available
11.2 Components

**Sodium metabisulphite**

*Acute oral toxicity*
Rat LD50: 1,420 mg/kg (As per OECD Guideline 401)

*Acute inhalation toxicity*
Rat LC50: > 5.5 mg/L air (As per OECD Guideline 403)

*Acute dermal toxicity*
Rat LD50: > 2,000 mg/kg (As per OECD Guideline 402)

*Skin irritation*
Rabbit Result: Non irritant (As per OECD Guideline 404)

*Eye irritation*
Rabbit Result: Irreversible effects on the eye (As per OECD Guideline 405)

*Sensitisation*
Non sensitising (As per OECD Guideline 406)

*Genetic toxicity (in-vitro)*
Chromosome aberration test
Result: Negative without metabolic activation (ECHA)

*Genetic toxicity (in-vivo)*
No data available

*Carcinogenicity*
No data available

*Toxicity to Reproduction*
No data available

*Teratogenicity*
No data available

**Additional information:**
RTECS: UX8225000

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**Sodium carbonate**

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

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

**Additional information**
RTECS: VZ4050000

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12 Ecological Information

12.1 Toxicity

No data available

**Components:**

**Sodium metabisulphite**

*Toxicity to fish*
Oncorhyncus mykiss (rainbow trout) LC50: 150-220 mg/l; 96 h
Toxicity to Daphnia
Daphnia magna (water flea) EC50: 89 mg/l; 24 h
(As Per OECD Test Guideline 202)
Toxicity to algae
Desmodesmus subspicatus (green algae) IC50: 48 mg/l; 72 h
(As Per OECD Test Guideline 201)
Toxicity to bacteria
Pseudomonas putida EC50: 56 mg/l; 72 h
(As Per IUCLID)
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

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 substances considered to be persistent, bioaccumulating or 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. Dissolve or mix the material with a combustive solvent and burn in chemical incinerator equippped with an afterburner and scrubber.
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 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
Acute Tox.oral 4 Acute toxicity, oral, Category 4
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
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