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

1.1 Product Identifiers
Product Number M199
Product Name Middlebrook 7H10 Agar Base
REACH Registration Number This product is a mixture. Reach registration number is not available for this substance.

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. +91-22-25002468
Mail Id info@himedialabs.com Website www.himedialabs.com

1.4 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]
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

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>Malachite green oxalate</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>CAS No. : 2437-29-8</td>
<td>Acute Tox.oral 4; Eye Dam. 1; Repr. 2;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aquatic Acute 1; Aquatic Chronic 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H302; H318; H361d; H400; H410</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>Ferric ammonium citrate</td>
<td>As Per EC Regulation 1272/2008 Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H315; H319; H335</td>
<td>&gt;=0.1 - &lt;=1.0%</td>
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<tr>
<td>CAS No. : 1185-57-5</td>
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<tr>
<td>EC No. : 214-686-6</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium chloride, anhydrous</td>
<td>As Per EC Regulation 1272/2008 Eye Irrit. 2A H319</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
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<tr>
<td>CAS No. : 10043-52-4</td>
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<tr>
<td>EC No. : 233-140-8</td>
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<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper sulphate</td>
<td>As Per EC Regulation 1272/2008 Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A; Aquatic Chronic 1 H302; H315; H319; H410 As Per EC Directive 67/548/EEC or 1999/45/EC Xn; Xi; N R22; R36/38; R50/53</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>CAS No. : 7758-98-7</td>
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<tr>
<td>EC No. : 231-847-6</td>
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</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc sulphate</td>
<td>As Per EC Regulation 1272/2008 Eye Dam. 1; Aquatic Chronic 1 H318; H410</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
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<tr>
<td>CAS No. : 7446-19-7</td>
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<tr>
<td>EC No. : 231-793-3</td>
<td></td>
<td></td>
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</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, Sodium oxides, Sulphur oxides, Potassium 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>Light yellow to light green 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>6.40 - 6.80</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>
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<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>
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</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
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<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
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<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

**Malachite green oxalate**

*Acute Oral toxicity*

Rat LD50: 275 mg/kg (As per RTECS)

*Skin irritation*

Rabbit result: Irritations

*Eye irritation*

Rabbit result: Severe Irritations (As Per RTECS)

Germ cell mutagenicity: Genotoxicity in vitro

*Ames test*

Salmonella Typhimurium

Result: Negative (As per National Toxicology Programme)

**Additional information:**

RTECS BQ1190000

**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

**Calcium chloride**

*Acute oral toxicity*

Rat LD50: 1,000 mg/kg

(As per IUCLID)

*Acute dermal toxicity*
**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

---

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 for this mixture

Components:
Malachite green oxalate
*Toxicity to fish*
Ictalurus catus (catfish) LC50: 14mg/l; 96 h
*Toxicity to Daphnia and other aquatic invertebrates*
Daphnia magna (water flea) EC50: 29mg/l; 48 h

*Toxicity to Bacteria*
Sewage sludge EC50: 10-100 mg/l
(As per OECD test guideline 209)

Ammonium Ferric Citrate
*Eco toxicity*
No data available.

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 (Rainbow trout) LC50: 0.1 mg/l; 96 h
(As Per ECOTOX Database)

*Toxicity to aquatic invertebrates*
Daphnia magna (Water flea) Static test LC50: 7 μg/l; 48h

*Toxicity to aquatic algae and cyanobacteria*
Phaeodactylum tricornutum Static test EC10: 2.9 μg/l; 72h

*Toxicity to terrestrial arthropods*
Folsomia fimetaria EC10 :688mg/kg; 21d

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
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
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

<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>H318</td>
<td>Causes serious eye damage</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>H361d</td>
<td>Suspected of damaging the unborn child.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</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 Acute 1</td>
<td>Hazardous to the aquatic environment, acute hazard, Category 1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>Hazardous to the aquatic environment, long term hazard, Category 1</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>
</tr>
<tr>
<td>Repr. 2</td>
<td>Reproductive toxicity, Category 2</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>Skin corrosion or irritation, Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3</td>
</tr>
<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>
<tr>
<td>N</td>
<td>Dangerous for the environment</td>
</tr>
<tr>
<td>Xi</td>
<td>Irritant</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</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.