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

1.1 Product Identifiers
- Product Number: M349
- Product Name: Bushnell Haas Agar
- 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

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>Ferric chloride</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.1 - &lt;=1.0%</td>
</tr>
<tr>
<td>CAS No. : 7705-08-0</td>
<td>Met. Corr. 1; Acute Tox. oral 4; Skin Irrit. 2; Eye Dam. 1</td>
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<tr>
<td>EC No. : 231-729-4</td>
<td>H290; H302; H315; H318</td>
<td></td>
</tr>
</tbody>
</table>

www.himedialabs.com
Safety data sheet (SDS)
Revision: 00000
Date of Revision: 03.07.2019
### Component Classification Concentration

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium nitrate</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=1.0 - &lt;=10.0%</td>
</tr>
<tr>
<td>CAS No.: 6484-52-2</td>
<td>Ox. Sol. 3; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H272; H315; H319; H335</td>
<td></td>
</tr>
<tr>
<td>EC No.: 229-347-8</td>
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</table>

<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</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>CAS No.: 10043-52-4</td>
<td>Eye Irrit. 2A H319</td>
<td></td>
</tr>
<tr>
<td>EC No.: 233-140-8</td>
<td></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**

Magnesium oxides, Sulphur oxides, Hydrogen chloride gas, Iron oxides, Nitrogen oxides (NOx), Oxides of phosphorus, Potassium oxides

5.3 **Precautions for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary

5.4 **Further information**
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 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 of 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, homogeneous free flowing powder.

- **Odour**
  No data available

- **Odour Threshold**
  No data available

- **pH**
  6.80 - 7.20

- **Melting/freezing point**
  No data available

- **Initial boiling point and boiling range**
  No data available

- **Flash point**
  No data available

- **Flammability (Solid, gas)**
  No data available

- **Vapour pressure**
  No data available

- **Relative density**
  No data available

- **Water Solubility**
  No data available

- **Partition coefficient: n-octanol/water**
  No data available

- **Autoignition Temperature**
  No data available

- **Viscosity**
  No data available

- **Explosive properties**
  No data available

- **Oxidizing properties**
  No data available

- **Vapour density**
  No data available

- **Thermal decomposition**
  No data available

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**

**Ferric chloride**
Acute oral toxicity
Rat LD50: 3,200mg/kg (As per OECD Guideline 401)

Acute inhalation toxicity
No data available

Acute dermal toxicity
Rabbit LD50: > 559mg/kg (As per EPA OPP 81-2)
Skin irritation
Rabbit Result: Non Irritant (As per OECD Guideline 404)

Eye irritation
Rabbit Result: Irreversible effects on the eye (ECHA)

Sensitisation
Guinea pig Result: Not sensitising

Genetic toxicity (in-vitro)
Mammalian cell gene mutation assay
Mouse lymphoma cells Result: Negative

Genetic toxicity (in-vivo)
Mouse Result: Positive (ECHA)

Carcinogenicity
No data available

Toxicity to Reproduction
No data available

Teratogenicity
No data available

Additional information:
RTECS: LJ9100000

Ammonium nitrate

Acute oral toxicity
LD50 rat: 2,462 mg/kg
Symptoms: Nausea, Vomiting, Diarrhoea, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
(OECD Test Guideline 401)

Acute inhalation toxicity
LC50 rat: > 88.8 mg/l; 4 h (IUCLID)
Symptoms: Inhalation may lead to the formation of oedemas in the respiratory tract.
(OECD Test Guideline 401)

Additional Information:
RTECS: BR9050000

Further information:
After absorption of large quantities:
Symptoms: Methaemoglobinemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms, key symptom: cyanosis (blue colouration of the blood). The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting and diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis and haemolysis.

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

12 Ecological Information  
12.1 Toxicity  
No data available  
**Components:**  
**Ferric chloride**  
*Toxicity to microorganisms*  
Activated sludge IC50: ca. 170 mg/L (ECHA)  
**Components:**  
**Ammonium Nitrate**  
*Toxicity to fish*  
LC50 Cyprinus carpio (Carp): 74 mg/l; 48 h (IUCLID)  
*Toxicity to daphnia and other aquatic invertebrates*  
EC50 Daphnia magna (Water flea): 555 mg/l (IUCLID)  
*Toxicity to algae*  
IC50 Scenedesmus quadricauda (Green algae): 83 mg/l (IUCLID)  
**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*  
AlgaeIC50 : 3,130 mg/l; 120 h  
(As per IUCLID)  

12.2 Persistence and degradability  
No data available  
12.3 Bioaccumulative potential
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**

<table>
<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
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</thead>
</table>

14.2 **UN proper shipping name**

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<th>ADR</th>
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<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
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<tbody>
<tr>
<td>Not dangerous goods</td>
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14.3 **Transport hazard class(es)**

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<th>ADNR</th>
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<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
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<td>-</td>
<td>-</td>
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</table>

14.4 **Packaging group**

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<thead>
<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IATA_C</th>
<th>IATA_P</th>
<th>IMDG</th>
<th>RID</th>
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</thead>
</table>

14.5 **Environmental hazards**

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<tr>
<th>ADNR</th>
<th>ADR</th>
<th>IMDG</th>
<th>Marine Pollutant</th>
<th>IATA_C</th>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</tr>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire; oxidizer</td>
</tr>
<tr>
<td>H290</td>
<td>May be corrosive to metals</td>
</tr>
<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>Acute Tox. oral 4</td>
<td>Acute toxicity, oral, Category 4</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>Met. Corr. 1</td>
<td>Corrosive to metals, Category 1</td>
</tr>
<tr>
<td>Ox. Sol. 3</td>
<td>Oxidising solids, Category 3</td>
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<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>
</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.