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

1.1 Product Identifiers
Product Number M208
Product Name Vitamin Free Yeast Base
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[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>Boric acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS No. : 10043-35-3</td>
<td>As Per EC Regulation 1272/2008</td>
<td>&gt;=0.01 - &lt;=0.1%</td>
</tr>
<tr>
<td>EC No. : 233-139-2</td>
<td>Repr. Tox. 1A, 1B H360</td>
<td></td>
</tr>
<tr>
<td>Index-No : 005-007-00-2</td>
<td></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>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>
<td></td>
<td></td>
</tr>
<tr>
<td>EC No. : 231-847-6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Potassium iodide           | As Per EC Regulation 1272/2008 Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A | >=0.01 - <=0.1%    |
| CAS No. : 7681-11-0        |                                                                                |                     |
| EC No. : 231-659-4         |                                                                                |                     |

| Ferric chloride            | As Per EC Regulation 1272/2008 Met. Corr. 1; Acute Tox.oral 4; Skin Irrit. 2; Eye Dam. 1 H290; H302; H315; H318 | >=0.01 - <=0.1%    |
| CAS No. : 7705-08-0        |                                                                                |                     |
| EC No. : 231-729-4         |                                                                                |                     |

| Manganese sulphate         | As Per EC Regulation 1272/2008 STOT RE 2; Aquatic Chronic 1 H373; H411       | >=0.01 - <=0.1%    |
| CAS No. : 10034-96-5       |                                                                                |                     |
| EC No. : 232-089-9         |                                                                                |                     |
| Index-No : 025-003-00-4    |                                                                                |                     |

| Zinc sulphate              | As Per EC Regulation 1272/2008 Eye Dam. 1; Aquatic Chronic 1 H318; H410    | >=0.01 - <=0.1%    |
| CAS No. : 7446-19-7        |                                                                                |                     |
| EC No. : 231-793-3         |                                                                                |                     |

| Calcium chloride, anhydrous | As Per EC Regulation 1272/2008 Eye Irrit. 2A H319                          | >=0.1 - <=1.0%     |
| CAS No. : 10043-52-4       |                                                                                |                     |
| EC No. : 233-140-8         |                                                                                |                     |

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, Oxides of phosphorus, Potassium oxides, Magnesium oxides, 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 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.

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: 5.40 - 5.80
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
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)

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

**Potassium iodide**

*Acute oral toxicity*
Rat LD50: 3118mg/kg; (As Per OECD Test Guideline 401)

*Acute intravenous toxicity*
Rat LD50: 285mg/kg

*Skin irritation*
No data available

*Eye irritation*
No data available

*Sensitisation*
No data available

*Genetic toxicity (in-vitro)*
Mammalian cell micronucleus test
Result: Negative

*Genetic toxicity (in-vivo)*
Rat Chromosome aberration assay
Result: Negative

**Carcinogenicity**
Rat
Not carcinogenic (As per OECD guideline 453)

**Teratogenicity**
Rat
No developmental toxicity/teratogenicity (ECHA)

**Additional information:**
RTECS: TT2975000

**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

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

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

Component
Boric Acid
Toxicity to fish
Gambusia affinis LC50: 5600 mg/l
Rainbow trout LC50: 150 mg B/L; 24d
Goldfish LC50: 46 mg; 7d
Toxicity to daphnia and other aquatic invertebrates
Daphnia EC50 : 115 mg/l

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: 688 mg/kg; 21d

Components:
Potassium iodide
Toxicity to fish
Oncorhynchus mykiss (Rainbow trout) Static test: LC50: 3780 mg/L; 96h (As per OECD Guideline 203)
Toxicity to aquatic invertebrates
Daphnia magna (Water flea) Static test: EC50: 10.6 mg/L; 24h (As per OECD Guideline 202)
Toxicity to aquatic algae and cyanobacteria
Scenedesmus quadricauda (green algae) Static test: Toxicity threshold: 2370 mg/L; 7d
**Components:**

**Ferric chloride**

*Toxicity to microorganisms*
Activated sludge IC50: ca. 170 mg/L (ECHA)

**Components**

**Manganese sulphate**

*Toxicity to Fish*
Onchorhynchus 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) 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)

**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)

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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**
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

H290 May be corrosive to metals
H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H360 May damage fertility or the unborn child
H373 May cause damage to organs through prolonged or repeated exposure
H410 Very toxic to aquatic life with long lasting effects
H411 Toxic to aquatic life with long lasting effects
Acute Tox. oral 4 Acute toxicity, oral, Category 4
Aquatic Chronic 1 Hazardous to the aquatic environment, long term hazard, Category 1
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
Met. Corr. 1 Corrosive to metals, Category 1
Repr. Tox. 1A, 1B Reproductive toxicity, Category 1A, 1B
Skin Irrit. 2 Skin corrosion or irritation, Category 2
STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
N Dangerous for the environment
Xi Irritant
Xn Harmful

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.