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

### 1.1 Product Identifiers

| | |
|---|---|
| Product Number | M677 |
| Product Name | Yeast Nitrogen Base Agar (Twin pack) |
| 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 | C - 40,Road No.21Y,MIDC, Wagle Industrial Area, Thane(W), - 400 604, India | | |
| Tel. No. | +91-22- 6147 1919/6116 9797 | Fax No. | : +91-22- 61471920 |
| 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

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## 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

| Component | Classification | Concentration |
|---|---|---|
| Niacin | | |
| CAS No. : 59-67-6<br>EC No. : 200-441-0 | **As Per EC Regulation 1272/2008**<br>Eye Irrit. 2A H319 | >=0.01 - <=0.1% |

| Component | Classification | Concentration |
|---|---|---|
| p-Amino benzoic acid (PABA) | | |
| CAS No. : 150-13-0<br>EC No. : 205-753-0 | **As Per EC Regulation 1272/2008**<br>Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2A H315; H317; H319 | >=0.01 - <=0.1% |

| Component | Classification | Concentration |
|---|---|---|
| Boric acid | | |
| CAS No. : 10043-35-3<br>EC No. : 233-139-2<br>Index-No : 005-007-00-2 | **As Per EC Regulation 1272/2008**<br>Repr.Tox. 1A, 1B H360 | >=0.01 - <=0.1% |

| Component | Classification | Concentration |
|---|---|---|
| Copper sulphate | | |
| CAS No. : 7758-98-7<br>EC No. : 231-847-6 | **As Per EC Regulation 1272/2008**<br>Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A; Aquatic Chronic 1 H302; H315; H319; H410<br>**As Per EC Directive 67/548/EEC or 1999/45/EC**<br>Xn; Xi; N R22; R36/38; R50/53 | >=0.01 - <=0.1% |

| Component | Classification | Concentration |
|---|---|---|
| Potassium iodide | | |
| CAS No. : 7681-11-0<br>EC No. : 231-659-4 | **As Per EC Regulation 1272/2008**<br>Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A H302; H315; H319 | >=0.01 - <=0.1% |

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

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

| Component | Classification | Concentration |
|---|---|---|

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

| Component | | Classification | Concentration |
|---|---|---|---|
| Calcium chloride, anhydrous | | | |
| CAS No. :<br>EC No. : | 10043-52-4<br>233-140-8 | **As Per EC Regulation 1272/2008**<br>Eye Irrit. 2A H319 | >=1.0 - <=10.0% |

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, Calcium oxide, Magnesium oxides, Sulphur oxides, 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

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 saftey 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 | Part A : White to cream homogeneous free flowing powder<br>Part B : White to cream homogeneous free flowing powder |
| Odour | No data available |
| Odour Threshold | No data available |
| pH | 5.20 - 5.60 |
| 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. Other Decomposition products not known.

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**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**

**Niacin (Nicotinic acid)**

*Acute oral toxicity*

Rat LD50: >5000 mg/kg;24h(ECHA)

*Acute dermal toxicity*

Rat LD50: >2000 mg/kg;24h(ECHA)

*Acute inhalation toxicity*

Rat LD50: >3.8 mg/L; 4h(ECHA)
*Skin irritation*
Rabbit: Does not cause irritation to skin(ECHA)
*Eye irritation*
Rabbit:May cause slight to mild irritation to eyes(ECHA)
*Sensitisation*
Nonsensitizer(ECHA)
Repeated Exposures
No significant effect seen on rats(ECHA)
*Germ cell mutagenicity*
Genotoxicity invitro
Chinese hamster Ovary (CHO)
Result: Negative(ECHA)
Genotoxicity invivo
Mammalian Bone Marrow Chromosome Aberration Test
Result: Negative(ECHA)

*Mutagenicity (mammal cell test): micronucleus*
No data available
*Carcinogenicity*
No data available
*Reproductive toxicity*
No data available
*Teratogenicity*
Rats, 20 d
Result: Negative(ECHA)

**Additional information**
RTECS QT0525000

**PABA (Para aminobenzoic acid)(4-aminobenzoic acid)**
*Acute oral toxicity*
Rat LD50 : 6gm/kg(RTECS)
Mouse LD50 : 2850mg/kg
Rabbit LD50 : 1830 mg/kg
Dog LD50 : 1000 mg/kg

*Acute inhalation toxicity*
No data available
*Acute dermal toxicity*
No data available
*Skin irritation*
No data available
*Eye irritation*
No data available
*Sensitisation*
STOT :May cause respiratory irritation
*Genetic toxicity(in-vitro)*

Ames Test
Negative (National Toxicological Program)
Germ cell mutagenicity
Mouse
Causes DNA damage
*Carcinogencity*
IARC Group 3 (It is not established as carcinogen to humans)
*Toxicity to Reproduction*
No data available
*Teratogenicity*
No data available

**Additional information:**
RTECS: No data available

**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

**Components**

**Niacin(Nicotinic acid)**

*Toxicity to fish*

Brown trout (Salmo Trutta Fario)LC50: 520 mg/l; 96 h(ECHA)

*Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna EC50: 77 mg /L; 48 h(ECHA)

*Toxicity to algae*

Desmodesmus subspicatus Scenedesmus subspicatus)
EC50: 89.93 mg/L 72 h(ECHA)

*Toxicity to microorganisms*

Pseudomonas putida EC50: 120 mg /L; 16 h(ECHA)
Pseudomonas putida EC10: 88 mg /L; 16 h(ECHA)

**Components**

**PABA (Para aminobenzoic acid) (4-aminobenzoic acid)**

*Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna (Water flea) EC50 : 546 mg/l; 24 h.

*Toxicity to Bacteria*

*Microtox test*

*Phytobacterium phosphoreum* EC50: 27.4 mg/l; 30 mins.

**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

**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:**
**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: 10.6mg/L;24h (As per OECD Guideline 202)
*Toxicity to aquatic algae and cyanobacteria*
Scenedesmus quadricauda(green algae)Static test:Toxicity threshold: 2370mh/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*

AlgaeIC50 : 3,130 mg/l; 120 h
(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

| | |
|---|---|
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| 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 |
| Skin Sens. 1 | Sensitisation, Skin, Category 1 |
| 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**



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.