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

1.1 Product Identifiers

Product Number	M141
Product Name	Yeast Carbon 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	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

---

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
p-Amino benzoic acid (PABA)			
CAS No. : EC No. :	150-13-0 205-753-0	**As Per EC Regulation 1272/2008** 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 EC No. : 233-139-2 Index-No : 005-007-00-2	**As Per EC Regulation 1272/2008** Repr.Tox. 1A, 1B H360	>=0.01 - <=0.1%

Component	Classification	Concentration
Copper sulphate		
CAS No. : 7758-98-7 EC No. : 231-847-6	**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	>=0.01 - <=0.1%

Component	Classification	Concentration
Ferric chloride		
CAS No. : 7705-08-0 EC No. : 231-729-4	**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%

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

Component	Classification	Concentration
Manganese sulphate		
CAS No. : 7785-87-7 EC No. : 232-089-9	**As Per EC Regulation 1272/2008** STOT RE 2; Aquatic Chronic 2 H373; H411	>=0.01 - <=0.1%

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

Component	Classification	Concentration
Niacin		

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

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

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, Sulphur oxides, Magnesium 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	White to Cream coloured homogenous free flowing powder
Odour	No data available
Odour Threshold	No data available
pH	5.30 - 5.70
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
No data available
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

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

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

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

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

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

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

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

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:

Ferric chloride

Toxicity to microorganisms

Activated sludge IC50: ca. 170 mg/L (ECHA)

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

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
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)

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)

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.