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

1.1 Product Identifiers

Product Number	M417
Product Name	Vitamin B_{12} 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	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]

Sensitisation, Skin, (Category 1), H317

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

Pictogram

Signal word Warning

Hazard Statement(s)

H317 May cause an allergic skin reaction

Precautionary Statement(s)

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352 IF ON SKIN: wash with plenty of soap and water.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

2.3 Other Hazards

None

3 Composition/Information On Ingredients

3.2 Mixture

Component	Classification	Concentration
Sodium thioglycollate		
CAS No. : 367-51-1 EC No. : 206-696-4	**As Per EC Regulation 1272/2008** Acute Tox.oral. 3; Skin Sens. 1 H301; H317	>=1.0 - <=10.0%

Component	Classification	Concentration
Ferrous sulphate		
CAS No. : 7720-78-7 EC No. : 231-753-5 Index-No : 026-003-00-7 Molecular Formula : $FeSO_4$	**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. : 10034-96-5 EC No. : 232-089-9 Index-No : 025-003-00-4	**As Per EC Regulation 1272/2008** STOT RE 2; Aquatic Chronic 2 H373; H411	>=0.01 - <=0.01%

Component	Classification	Concentration
Guanine hydrochloride		
CAS No. : 635-39-2 EC No. : 211-235-5	**As Per EC Regulation 1272/2008** Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H315; H319; H335	>=0.001 - <=0.01%

Component	Classification	Concentration
Niacin		
CAS No. : 59-67-6 EC No. : 200-441-0	**As Per EC Regulation 1272/2008** Eye Irrit. 2A H319	>=0.001 - <=0.01%

Refer Section 16 for complete statement of H codes & 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 with plenty of soap and 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

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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, 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

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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. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see Section 13.

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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.

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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.

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9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Off-white to yellow homogeneous powder having a tendency to form soft lumps, which can be easily broken down to powder form.
Odour	No data available
Odour Threshold	No data available
pH	6.00 - 6.40
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
Decomposition 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

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10 Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

Avoid dust formation. Avoid using in areas having high humidity (> 80% RH) Exposure to moisture Direct sources of heat.

10.5 Incompatible materials

Strong oxidizing agents, Strong reducing agents, Strong acids, Strong bases

10.6 Hazardous decomposition products

Refer Section 5.2

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11 Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Mixture may cause skin irritation.

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

Mixture may cause skin sensitisation.

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

Reproductive toxicity

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS **:** No data available

11.2 Components

Sodium Thioglycollate

Acute oral toxicity

Rat LD50: 50-200 mg/kg(As per OECD Test Guideline 423)

Acute dermal toxicity

Rat LD50: >1000-2000 mg/kg(As per OECD Test Guideline 402)

Skin irritation

Rabbit: Slight irritation(As per OECD Test Guideline 404)

Eye irritation

Rabbit: Slight irritation(As per OECD Test Guideline 405)

Sensitization

Local Lymph Node Assay(LLNA)

Mouse: Positive (As per OECD Test Guideline 429)

Germ cell mutagenicity

Genotoxicity in vivo

In vivo micronucleus test:Mouse (male & female)

Oral Result: Negative method(As per OECD Test Guideline 474)

Genotoxicity in vitro

Ames Test: *Salmonella* Typhimurium

Result: Negative(As per OECD Test Guideline 471)

Additional information:

RTECS: AI7700000

Ferrous sulphate

Acute Oral Toxicity

Mouse LD50: 1.520 mg/kg

Additional Information

RTECS: NO8510000

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

Guanine hydrochloride
Acute toxicity
Rat Intraperitoneal LD50: 200 mg/kg;24h
Skin irritation
May cause skin irritation
Eye irritation
May cause eye irritation
Inhalation
May cause slight irritation
Sensitisation
No data available
Repeated Exposures
No data available
Germ cell mutagenicity
Genotoxicity invitro
No data available
Genotoxicity invivo
No data available
Mutagenicity (mammal cell test): micronucleus
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Teratogenicity
No data available

Additional information
RTECS MF8400000

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

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12 Ecological Information

12.1 Toxicity

No data available
Components
Ferrous sulphate
Toxicity to fish
Brook trout (Salvelinus fontinalis) LC 50: 0.41 mg/l ; 96h
Toxicity to daphnia and other aquatic invertebrates
Water flea (Daphnia magna) EC 50:6.15 mg/l;48h

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

Guanine hydrochloride
No ecotoxicological information 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
Sodium thioglycollate
Toxicity to fish
Oncorhynchus mykiss(rainbow trout)LC50: > 100 mg/l; 96 h
(As per OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates
Daphnia magna (Water flea)EC50: 38 mg/l; 48 h
(As per OECD Test Guideline 202)
Toxicity to algae
Desmodesmus subspicatus (green algae)EC50: > 100 mg/l; 72h
(As per OECD Test Guideline 201)
Toxicity to bacteria
EC50 Activated sludge: 820 mg/l; 0.5 h
(As per OECD Test Guideline 209)

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 preparation contains no substance considered to be persistent,bioaccumulating or 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 disposal company. Contact a licenced professional waste disposal service to dispose off this material.

13.2 Contaminated packaging

Dispose of as unused product.

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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

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15 Regulatory Information

This safety datasheet 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

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16 Other information

Text of H codes and classification mentioned in section 3

H301	Toxic if swallowed
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated

	exposure
H411	Toxic to aquatic life with long lasting effects
Acute Tox.oral 4	Acute toxicity, oral, Category 4
Acute Tox.oral. 3	Acute toxicity, oral, Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, long term hazard, Category 2
Eye Irrit. 2A	Serious eye damage or eye irritation, Category 2A
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
STOT SE 3	Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

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.