

**1 Identification of the substances/ mixture and of the company/ undertaking****1.1 Product Identifiers**

Product Number M1936  
Product Name Cystine Assay Medium  
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](mailto: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
Ammonium chloride		
CAS No. : 12125-02-9	<b>As Per EC Regulation 1272/2008</b> Acute Tox.oral 4; Eye Irrit. 2A H302; H319	≥1.0 - ≤10.0%
EC No. : 235-186-4		
Index-No : 017-014-00-8		

Component	Classification	Concentration
Ferrous sulphate		
CAS No. : 7720-78-7 EC No. : 231-753-5 Index-No : 026-003-00-7 Molecular Formula : FeSO <sub>4</sub>	<b>As Per EC Regulation 1272/2008</b> 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	<b>As Per EC Regulation 1272/2008</b> STOT RE 2; Aquatic Chronic 2 H373; H411	>=0.01 - <=0.1%

Component	Classification	Concentration
Guanine hydrochloride		
CAS No. : 635-39-2 EC No. : 211-235-5	<b>As Per EC Regulation 1272/2008</b> Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H315; H319; H335	>=0.01 - <=0.1%

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

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

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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, Hydrogen chloride gas, Sodium 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 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.

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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.

## **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	Off-white to yellow homogenous free flowing powder
Odour	No data available
Odour Threshold	No data available
pH	6.50 - 6.90
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**

**Ammonium Chloride**

*Acute Oral Toxicity*

Rat LD50: 1,650 mg/kg

*Irritation and corrosion*

Skin - rabbit - No skin irritation

Eyes - rabbit - Eye irritation

Sensitisation -Non sensitizer

*Chronic exposure*

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.

Signs and Symptoms of Exposure

No data available

*Potential Health Effects*

*Inhalation*

May be harmful if inhaled. May cause respiratory tract irritation.

*Skin*

May be harmful if absorbed through skin. May cause skin irritation.

*Eyes*

Causes eye irritation.

*Ingestion*

Harmful if swallowed

**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

**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  
*Carcinogenicity*  
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

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## 12 Ecological Information

### 12.1 Toxicity

No data available

#### Components

##### Ammonium chloride

*Toxicity to fish*

Oncorhynchus mykiss (rainbow trout) LC50: 42.91 mg/l; 96 h  
(As per ECHA)

Cyprinus carpio (Carp) LC50: 209.00 mg/l; 96 h

Lepomis macrochirus (Bluegill sunfish) EC10: 4.28 mg/l; 30 d  
(As per ECHA)

*Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna (Water flea) EC50: > 100 mg/l; 48 h  
(As per ECHA)

Daphnia magna (Water flea) LC50: 161 mg/l - 48 h

*Toxicity to algae*

Chlorella vulgaris (Fresh water algae) EC50: 1,300 mg/l; 5 d  
(As per ECHA)

*Toxicity to bacteria*

EC50 activated sludge: 1,310 mg/l; 0.5 h  
(OECD Test Guideline 209)

#### 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**

#### **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.

#### **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.

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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 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

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### 16 Other information

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
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

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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.