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

### 1.1 Product Identifiers

| | |
|---|---|
| Product Number | R097 |
| Product Name | Millon's Reagent |
| 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
For InVitro Diagnostic Use

### 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 |

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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]***

Corrosive to metals (Category 1), H290
Acute toxicity, Oral (Category 2), H300
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Skin corrosion (Category 1A), H314
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

### 2.2 Label elements

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

Pictogram

Signal word Danger

Hazard Statement(s)

| | |
|---|---|
| H290 | May be corrosive to metals |
| H300+H310+H330 | Fatal if swallowed, in contact with skin or if inhaled |
| H314 | Causes severe skin burns and eye damage |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H410 | Very toxic to aquatic life with long lasting effects |

Precautionary Statement(s)

| | |
|---|---|
| P260 | Do not breathe dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P330+P331+P310 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P304+P340+P310 | IF INHALED : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

**2.3 Other Hazards**

None

## 3 Composition/Information On Ingredients

**3.2 Mixture**

| Component | | Classification | Concentration |
|---|---|---|---|
| Nitric acid | | | |
| CAS No. :<br>EC No : | 7697-37-2<br>231-714-2 | **As Per EC Regulation 1272/2008**<br>H272; H290; H314; H319; H318 | >=30 - <=50% |

| Component | | Classification | Concentration |
|---|---|---|---|
| Mercury dinitrate monohydrate | | | |
| CAS No. :<br>EC No : | 7783-34-8<br>233-152-3 | **As Per EC Regulation 1272/2008**<br>H300; H330; H310; H373; H400; H410 | >=10 - <=30% |

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

## 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

Nitrogen oxides (NOx), Mercury/mercury 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.

---

## 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 10-30°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 89/686/EEC and the standard EN 374 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 | Colourless to light greenish yellow solution |
| Odour | No data available |
| Odour Threshold | No data available |
| pH | No data available |
| 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**

No data available

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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

***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

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**12 Ecological Information**

**12.1 Toxicity**

No data available

**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**

No data available

**12.6 Other adverse effects**

No data available

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**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 : 2922 ADR : 2922 IATA_C : 2922 IATA_P : 2922 IMDG : 2922 RID : 2922

**14.2 UN proper shipping name**

| | | |
|---|---|---|
| ADNR | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |
| ADR | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |
| IATA_C | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |
| IATA_P | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |
| IMDG | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |
| RID | : | CORROSIVE LIQUID, TOXIC, N.O.S. (Nitric acid, Mercury dinitrate monohydrate) |

**14.3 Transport hazard class(es)**

ADNR : 8 ADR : 8 IATA_C : 8 IATA_P : 8 IMDG : 8 RID : 8

**14.4 Packaging group**

ADNR : II ADR : II IATA_C : II IATA_P : II IMDG : II RID : II

**14.5 Environmental hazards**

ADNR : NO ADR : NO IMDG : NO IATA_C : Marine Pollutant- NO IATA_P : 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

| | |
|---|---|
| H272 | May intensify fire; oxidizer. |
| H290 | May be corrosive to metals. |
| H300 | Fatal if swallowed. |
| H300 + H310 + H330 | Fatal if swallowed, in contact with skin or if inhaled |
| H310 | Fatal in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**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.