


<b>Material Safety Data Sheet</b>	
<b>MILLON'S REAGENT</b>	<b>VERSION : 02</b> <b>DATE OF ISSUE : 26-08-2019</b> <b>SUPERSEDES : 01</b>
<b>Product Code : 31995</b>	<b>Page 1 of 10</b>

## **1. Identification of the substance/mixture and of the company/undertaking**

### **1.1. Product identifier**

**Trade name :** MILLON'S REAGENT

**Product code :** 31995

### **1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use :** Industrial. For professional use only.

### **1.3. Details of the supplier of the safety data sheet**

**Company identification :** MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.

Email : [info@molychem.net](mailto:info@molychem.net)

Works: Plot No. B/9, Badlapur M.I.D.C., OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503.

### **1.4. Emergency telephone number**

Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).

## **2. Hazards identification -DSD**

### **2.1. Classification of the substance or mixture**

**Classification EC 67/548 or EC 1999/45**

**Classification :** Repr. Cat. 2; R61

T; R23

Xn; 48/20

C; R35

R52-53

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

**Health hazards :** Reproductive toxicity - Unborn Child - Category 1A - Danger (CLP : Repr. 1A) H360

Specific Target Organ Toxicity - Repeated exposure - Category 2 - Warning (CLP : STOT RE 2) H373

Skin corrosion - Category 1A - Danger (CLP : Skin Corr. 1A) H314

**Environmental hazards :** Hazardous to the aquatic environment - Chronic hazard - Category 3 (CLP : Aquatic Chronic 3) H412

### **2.2. Label elements**

**Labelling EC 67/548 or EC 1999/45**

**Symbol(s) :** T : Toxic

C : Corrosive



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**R Phrase(s) :** R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed  
R23 : Toxic by inhalation.

R33 : Take precautionary measures against static discharges.

R35 : Causes severe burns.

R36/38 : Irritating to eyes and skin.

R48/20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation.

R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R61 : May cause harm to the unborn child.

**S Phrase(s) :** S4 : Keep away from living quarters.

S24 : Avoid contact with skin.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 : After contact with skin, wash immediately with

S35 : This material and its container must be disposed of in a safe way.

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

S38 : In case of insufficient ventilation, wear suitable respiratory equipment.

S45 : In case of accident or if you feel unwell, seek medical advice immediately ( show the label when possible).

S53 : Avoid exposure - obtain special instructions before use.

S59 : Refer to manufacturer/supplier for information on recovery/recycling.

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

## Labelling Regulation EC 1272/2008 (CLP)

### Hazard pictograms



**Signal words :** Danger

**Hazard statements :** H360D: May damage the unborn child.

H314 : Causes severe skin burns and eye damage.

H373 : May cause damage to organs through prolonged or repeated exposure.

H412 : Harmful to aquatic life with long lasting effects.

### Precautionary statements

• **General :** P201: Obtain special instructions before use.

• **Prevention :** P280: Wear protective gloves, protective clothing, eye protection, face protection.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

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P273: Avoid release to the environment.

P264: Wash thoroughly after handling.

• **Response** : P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P308+P313: If exposed or concerned : get medical advice.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.

P303+P361+P533: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P314: Get medical advice if you feel unwell.

• **Storage** : P405: Store locked up.

• **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special labelling** : Restricted to professional users.

## 2.3. Other hazards

**Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## 3. Composition/information on ingredients

**Substance / Preparation** : Preparation.

**Hazardous component(s)** : This product is hazardous.

Substance name	Contents	CAS No
Nitric acid :	> 25 < 50 %	7697-37-2
mercury :	> 1 < 5 %	7439-97-6
Water :	> 50 < 75 %	7732-18-5

## 4. First aid measures

### 4.1. Description of first aid measures

**Inhalation** : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor.

**Skin contact** : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor.

**Eye contact** : Immediately call a POISON CENTER or doctor. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

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**Ingestion :** Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. Rinse mouth.

## **4.2. Most important symptoms and effects, both acute and delayed**

**Symptoms relating to use :** May damage the unborn child. Causes damage to organ. Causes severe skin burns and eye damage.

## **4.3. Indication of any immediate medical attention and special treatment needed**

**General information :** Never give anything by mouth to an unconscious person.

If exposed or concerned : get medical advice.

## **5. Fire-fighting measures**

### **5.1. Extinguishing media**

**Suitable extinguishing media :** Foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable extinguishing media :** Do not use a heavy water stream.

**Surrounding fires :** Use water spray or fog for cooling exposed containers.

### **5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products :** Under fire conditions, hazardous fumes will be present. Thermal decomposition generates : Corrosive vapours.

### **5.3. Advice for fire-fighters**

**Protection against fire :** Do not enter fire area without proper protective equipment, including respiratory protection.

**Special procedures :** Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

## **6. Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**For emergency responders :** Equip cleanup crew with proper protection. Ventilate area.

**For non-emergency personnel :** Evacuate unnecessary personnel.

### **6.2. Environmental precautions**

**Environmental precautions :** Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

### **6.3. Methods and material for containment and cleaning up**

**Clean up methods :** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

### **6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

## **7. Handling and storage**

### **7.1. Precautions for safe handling**

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**Handling :** Wash thoroughly after handling. Avoid contact during pregnancy or while nursing. Do not breathe dust, fume, gas, mist, vapours, spray. Obtain special instructions before use.

**Technical protective measures :** Provide good ventilation in process area to prevent formation of vapour.

**Special precautions :** Avoid breathing dust, fume, gas, mist, vapours, spray.

## **7.2. Conditions for safe storage, including any incompatibilities**

**Storage :** Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

**Storage regulation :** Comply with applicable regulations.

**Storage - away from :** Strong bases. Strong acids. Sources of ignition. Direct sunlight.

## **7.3. Specific end use(s)**

**Specific end use(s) :** None.

## **8. Exposure controls/personal protection**

### **8.1. Exposure controls**

**Personal protection :** Avoid all unnecessary exposure.

- **Respiratory protection :** Wear approved mask.
- **Hand protection :** Wear protective gloves.
- **Skin protection :** Wear suitable protective clothing.
- **Eye protection :** Chemical goggles or face shield.
- **Others :** When using, do not eat, drink or smoke.

### **8.2. Control parameters**

**Occupational Exposure Limits :** No data available.

## **9. Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

**Physical state at 20 °C :** Liquid.

**Odour threshold :** No data available.

**pH value :** No data available.

**Melting point [°C] :** No data available.

**Decomposition point [°C] :** N/A

**Critical temperature [°C] :** No data available.

**Auto-ignition temperature [°C] :** No data available.

**Flammability (solid, gas) :** N/A

**Flash point [°C] :** No data available.

**Boiling point [°C] :** N/A

**Initial boiling point [°C] :** No data available.

**Final boiling point [°C] :** No data available.

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**Evaporation rate : N/A**

**Vapour pressure [20°C] : No data available.**

**Vapour pressure mm/Hg : N/A**

**Vapour density : N/A**

**Density [g/cm<sup>3</sup>] : 1,4**

**Relative density, gas (air=1) : N/A**

**Relative density, liquid (water=1) : N/A**

**Solubility in water [% weight] : N/A**

**Solubility in water : No data available.**

**Log Pow octanol / water at 20°C : No data available.**

**Solubility : N/A**

**Viscosity at 40°C [mm<sup>2</sup>/s] : No data available.**

## **9.2. Other information**

**Explosive properties : N/A**

**Explosion limits - upper [%] : No data available.**

**Explosion limits - lower [%] : No data available.**

**Oxidising properties : No data available.**

## **10. Stability and reactivity**

### **10.1. Reactivity**

**Reactivity : Not established.**

### **10.2. Chemical stability**

**Chemical stability : Stable under recommended storage conditions.**

### **10.3. Possibility of hazardous reactions**

**Hazardous reactions : Not established.**

### **10.4. Conditions to avoid**

**Conditions to avoid : Direct sunlight. Extremely high or low temperatures.**

### **10.5. Incompatible materials**

**Materials to avoid : Strong acids. Strong bases.**

### **10.6. Hazardous decomposition products**

**Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.**

**Thermal decomposition generates : Corrosive vapours.**

## **11. Toxicological information**

### **11.1. Information on toxicological effects**

**Toxicity information : The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.**

### **Acute toxicity**

**• Inhalation : Based on available data, the classification criteria are not met.**

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• **Dermal** : Based on available data, the classification criteria are not met.  
• **Ingestion** : Based on available data, the classification criteria are not met.  
**Corrosion** : Causes severe skin burns and eye damage.  
**Irritation** : Based on available data, the classification criteria are not met.  
**Sensitization** : Based on available data, the classification criteria are not met.  
**Mutagenicity** : Based on available data, the classification criteria are not met.  
**Carcinogenicity** : Based on available data, the classification criteria are not met.  
**Toxic for reproduction** : May damage the unborn child.  
**STOT-single exposure** : Based on available data, the classification criteria are not met.  
**STOT-repeated exposure** : May cause damage to organs through prolonged or repeated exposure.  
**Aspiration hazard** : Based on available data, the classification criteria are not met.

## **12. Ecological information**

### **12.1. Toxicity**

**Toxicity information** : Harmful to aquatic life with long lasting effects.

### **12.2. Persistence - degradability**

**Persistence - degradability** : May cause long-term adverse effects in the environment.

### **12.3. Bioaccumulative potential**

**Bioaccumulative potential** : Not established.

### **12.4. Mobility in soil**

**Mobility in soil** : Not established.

### **12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

### **12.6. Other adverse effects**

**Environmental precautions** : Avoid release to the environment.

## **13. Disposal considerations**

### **13.1. Waste treatment methods**

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## **14. Transport information**

### **14.1. Land transport (ADR-RID)**

**Proper shipping name** : CORROSIVE LIQUID, TOXIC, N.O.S.

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**UN N° : 2922**

**H.I. nr : 86**

**ADR - Class : 8**

**Labelling - Transport : 8 : Corrosive substance. 6.1 : Toxic substances.**

**ADR - Classification code : CT1**

**ADR - Group : II**

**ADR - Packing instructions : P001**

**ADR - Limited Quantity : 1 L**

**ADR - Tunnel code : E : Passage forbidden through tunnels of category E.**

**14.2. Sea transport (IMDG) [English only]**

**Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.**

**UN N° : 2922**

**IMO-IMDG - Class or division : 8 : Corrosive substance. ( 6.1 : Toxic substances. )**

**IMO-IMDG - Packing group : II**

**IMO- IMDG - Packing instructions : P001**

**IMO-IMDG - Limited quantities : 1 L**

**IMO-IMDG - Marine pollution : Yes**

**EMS-Nr : F-A S-B**

**14.3. Air transport (ICAO-IATA) [English only]**

**Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.**

**UN N° : 2922**

**IATA - Class or division : 8 : Corrosive substance. ( 6.1 : Toxic substances. )**

**IATA - Packing group : II**

**IATA - Passenger and Cargo Aircraft : ALLOWED**

**- Passenger and Cargo - Packing : 851**

**instruction**

**- Passenger and Cargo - Maximum : 1 L**

**Quantity/Packing**

**IATA - Cargo only : ALLOWED**

**- Cargo only - Packing instruction : 855**

**- Cargo only - Maximum Quantity/ : 30 L**

**Packing**

**IATA - Limited Quantities : 0.5 L**

**ERG-Nr : 8P**

## **15. Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Safety, health and environmental : Ensure all national/local regulations are observed.**

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## **regulations/legislation specific for the substance or mixture**

**REACH Restrictions - Annex XVII** : With the exception of those listed below:

The components of this product are not subject to restrictions.

**REACH Authorisation - Annex XIV** : The components of this product are not subject to authorization.

## **15.2. Chemical Safety Assessment**

**Chemical Safety Assessment** : It has not been carried out.

## **16. Other information**

**Abbreviations and acronyms** : PBT: persistent, bioaccumulative and toxic.

vPvB: very persistent and very bioaccumulative

**Sources of key data used** : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

**Further information** : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008 **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

## **End of document**

**Prepared by: MOLYCHEM (INDIA)**

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