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

1.1. Product identifier

Trade name : MILLON'S REAGENT
Product code : 4690D

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 : LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai INDIA
Contact: +91 22 6663 6663 / Fax +91 22 6663 6699 / info@lobachemie.com
Safety Officer: + 91 98213 31336 / + 91 98214 86040 / safety@lobachemie.com

1.4. Emergency telephone number

Phone nr : + 91 22 6663 6663 (9:00am - 6:00 pm) [Office hours]

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

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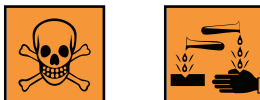
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2. Hazards identification -DSD (continued)

Labelling EC 67/548 or EC 1999/45

Symbol(s)



Symbol(s)

: T : Toxic
C : Corrosive

R Phrase(s)

: R23 : Toxic by inhalation.
R35 : Causes severe burns.
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.

Contains

: Water - Nitric acid - mercury

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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2. Hazards identification -DSD (continued)

<p>• Response</p> <p>• Storage</p> <p>• Disposal considerations</p> <p>Special labelling</p> <p>Contains</p> <p>2.3. Other hazards</p> <p>Other hazards</p>	<p>P273: Avoid release to the environment. P264: Wash thoroughly after handling.</p> <p>: 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+P353: 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.</p> <p>: P405: Store locked up.</p> <p>: 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.</p> <p>: Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)</p> <p>: Water - Nitric acid - mercury</p> <p>: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.</p>
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3. Composition/information on ingredients


Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Nitric acid	: > 25 < 50 %	7697-37-2	231-714-2	007-004-00-1	----	O; R8 C; R35 Ox. Liq. 1 _ H271 Skin Corr. 1A _ H314
mercury	: > 1 < 5 %	7439-97-6	231-106-7	080-001-00-0	----	Repr. Cat. 2; R61 T+; R26 T; R48/23 N; R50-53 Repr. 1B _ H360D Acute Tox. 2 (inhal) _ H330 STOT RE 1 _ H372 Aquatic Acute 1 _ H400 Aquatic Chronic 1 _ H410
Water	: > 50 < 75 %	7732-18-5	231-791-2	-----	----	Not classified (DSD/DPD) Not classified (GHS)

4. First aid measures

4.1. Description of first aid measures

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4. First aid measures (continued)

- 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.
- 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

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6. Accidental release measures (continued)

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

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

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8. Exposure controls/personal protection (continued)

Personal protection



Personal protection

- Respiratory protection** : Avoid all unnecessary exposure.
- Hand protection** : Wear approved mask.
- Skin protection** : Wear protective gloves.
- Eye protection** : Wear suitable protective clothing.
- Others** : Chemical goggles or face shield.
- : 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.
Colour	: Colorless
Odour	: Characteristic.
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.
Evaporation rate	: N/A
Vapour pressure [20°C]	: No data available.
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A
Density [g/cm³]	: 1,4
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A

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9. Physical and chemical properties (continued)

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 [mm²/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

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11. Toxicological information (continued)

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.
• 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.

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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.

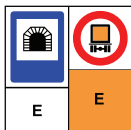
14. Transport information

14.1. Land transport (ADR-RID)

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

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14. Transport information (continued)

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 instruction	: 851
- Passenger and Cargo - Maximum Quantity/Packing	: 1 L
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 855
- Cargo only - Maximum Quantity/Packing	: 30 L
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 regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: With the exception of those listed below: The components of this product are not subject to restrictions. • mercury : Annex XVII
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.
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16. Other information

Revision	: Revision - See : *
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

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16. Other information (continued)

- List of relevant R phrases (heading 3)** : R8 : Contact with combustible material may cause fire.
R26 : Very toxic by inhalation.
R35 : Causes severe burns.
R48/23 : Toxic : danger of serious damage to health by prolonged exposure through inhalation.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R61 : May cause harm to the unborn child.
- List of full text of H-statements in section 3** : H271 : May cause fire or explosion; strong oxidizer.
H314 : Causes severe skin burns and eye damage.
H330 : Fatal if inhaled.
H360U : May damage the unborn child.
H372 : Causes 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** : None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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