


Material Safety Data Sheet	
RUTHENIUM TRICHLORIDE PURISS	VERSION : 03 DATE OF ISSUE : 31-01-2022 SUPERSEDES : 02
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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : RUTHENIUM TRICHLORIDE

Product code : 17740

Identification of the product : RUTHENIUM TRICHLORIDE PURISS

CAS No : 13815-94-6

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

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 : C; R34

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

Health hazards : Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : C : Corrosive



R Phrase(s) : R22: Harmful if swallowed.

R34 : Causes burns.

S Phrase(s) : S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27 : Take off immediately all contaminated clothing.

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

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

Labelling Regulation EC 1272/2008 (CLP)

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Hazard pictograms



Signal words : Danger

Hazard statements : H314 : Causes severe skin burns and eye damage.

Precautionary statements

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

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

P264: Wash thoroughly after handling.

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

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.

• **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.

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 : RUTHENIUM TRICHLORIDE PURISS

CAS No :13815-94-6

Substance.

Contains no other components or impurities which will influence the classification of the product.

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.

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

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. Rinse mouth. Do NOT induce vomiting.

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

Symptoms relating to use : 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 you feel unwell, seek medical advice (show the label where possible).

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.

6.3. Methods and material for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

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7. Handling and storage

7.1. Precautions for safe handling

Handling : Do not breathe dust, fume, gas, mist, vapours, spray. Wash thoroughly after handling. Wash contaminated clothing before reuse.

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

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 : Solid.

Odour threshold : No data available.

pH value : Not applicable.

Melting point [°C] : No data available.

Decomposition point [°C] : N/A

Critical temperature [°C] : N/A

Auto-ignition temperature [°C] : N/A

Flammability (solid, gas) : N/A

Flash point [°C] : N/A

Boiling point [°C] : N/A

Initial boiling point [°C] : N/A

Final boiling point [°C] : N/A

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Evaporation rate : N/A

Vapour pressure [20°C] : N/A

Vapour pressure mm/Hg : N/A

Vapour density : N/A

Density [g/cm³] : N/A

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

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

Solubility in water [% weight] : N/A

Solubility in water : N/A

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

Solubility : N/A

Viscosity at 40°C [mm²/s] : N/A

9.2. Other information

Explosive properties : N/A

Explosion limits - upper [%] : N/A

Explosion limits - lower [%] : N/A

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

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.

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

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

Aspiration hazard : Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

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 SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

H.I. nr : 80

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ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance.

ADR - Classification code : C2

ADR - Group : II

ADR - Packing instructions : P002

ADR - Limited Quantity : 1 KG

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

14.2. Sea transport (IMDG) [English only]

Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

IMO-IMDG - Class or division : 8 : Corrosive substance.

IMO-IMDG - Packing group : II

IMO- IMDG - Packing instructions : P002

IMO-IMDG - Limited quantities : 1 kg

IMO-IMDG - Marine pollution : No

EMS-Nr : F-A S-B

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

Proper shipping name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

UN N° : 3260

IATA - Class or division : 8 : Corrosive substance.

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 859

instruction

- Passenger and Cargo - Maximum : 15 kg

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 863

- Cargo only - Maximum Quantity/ : 50 kg

Packing

IATA - Limited Quantities : 5 kg

ERG-Nr : 8L

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. regulations/legislation specific for the substance or mixture

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REACH Restrictions - Annex XVII : 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.

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End of document

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