

Material Safety Data Sheet



NESSLER'S REAGENT (KING'S)

VERSION : 02
DATE OF ISSUE : 26-08-2019
SUPERSEDES : 01

Product Code : 32035

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

1.1. Product identifier

Trade name : NESSLER'S REAGENT (KING'S)

Product code : 32035

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 : Repr. Cat. 2; R61

T; R23

Xn; 48/20

C; R35

N; R51-53

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

Acute toxicity, Inhalation - Category 4 - Warning (CLP : Acute Tox. 4) H332

Environmental hazards : Hazardous to the aquatic environment - Chronic hazard - Category 2 (CLP : Aquatic Chronic 2) H411

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

Symbol(s) : T : Toxic

C : Corrosive

N : Dangerous for the environment

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R Phrase(s) : R23 : Toxic by inhalation.

R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed.

R33 : Danger of cumulative effects.

R35 : Causes severe burns.

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

R51/53 : Toxic 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.

S57 : Use appropriate container to avoid environmental contamination.

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

S60 : This material and its container must be disposed of as hazardous waste.

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.

H332 : Harmful if inhaled.

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

H411 : Toxic to aquatic life with long lasting effects.

Precautionary statements

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- **General** : P201: Obtain special instructions before use.
- **Prevention** : P280: Wear protective gloves, protective clothing, eye protection, face protection.
P271: Use only outdoors or in a well-ventilated area.
P260: Do not breathe dust, fume, gas, mist, vapours, spray.
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.
P391: Collect spillage.
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.
- **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
mercury :	> 1 < 5 %	7439-97-6
Yoduro potásico :	> 1 < 5 %	7681-11-0
Iodine :	> 1 < 5 %	7553-56-2
Hidróxido de sodio :	> 10 < 15 %	1310-73-2
Water :	> 75 < 99 %	7732-18-5

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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. Call a POISON CENTER or doctor if you feel unwell. Immediately call a POISON CENTER or doctor.

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

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

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

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

Symptoms relating to use : May damage the unborn child.

Danger of serious damage to health by prolonged exposure through inhalation. 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.

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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 : Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas, mist, vapours, spray. Avoid contact during pregnancy or while nursing. Wash thoroughly after handling.

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

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection :** In case of insufficient ventilation, wear suitable respiratory equipment.

- **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.

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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] : 1050C

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] : 1,15

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

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

Solubility in water [% weight] : Miscible in water

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.

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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** : Harmful if inhaled.
- **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 : Toxic 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

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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.

UN N° : 2922

H.I. nr : 86

ADR - Class : 8

Labelling - Transport : 8 : Corrosive substance. 6.1 : Toxic substances. 9 : Miscellaneous dangerous substances and articles.

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.) (9 : Miscellaneous dangerous substances and articles.)

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

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IATA - Class or division : 8 : Corrosive substance. (6.1 : Toxic substances.) (9 : Miscellaneous dangerous substances and articles.)

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.
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.

- 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.

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

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Prepared by: MOLYCHEM (INDIA)

For questions contact: MOLYCHEM

Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA)

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