

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 1 of 10

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

1.1. Product identifier

Trade name : ZENKER'S FIXING FOR MICROSCOPY

Product code : 19903

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.

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Carc. Cat. 2; R45

Muta. Cat. 2; R46

Repr. Cat. 2; R60-61

T; R25

Xn; 48/21/22

Xi; R36/38

N; R51-53

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

Health hazards : Carcinogenicity - Category 1B - Danger (CLP : Carc. 1B) H350

Reproductive toxicity - Fertility - Category 1B - Danger (CLP : Repr. 1B) H360

Reproductive toxicity - Unborn Child - Category 1B - Danger (CLP : Repr. 1B)

H360 Specific Target Organ Toxicity - Repeated exposure - Category 2 - Warning (CLP : STOT RE 2) H373

Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319

Germ cell mutagenicity - Category 1B - Danger (CLP : Muta. 1B) H340

Acute toxicity, Oral - Category 2 - Danger (CLP : Acute Tox. 2) H300

Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

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

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 2 of 10



Symbol(s) : T : Toxic

N : Dangerous for the environment

R Phrase(s) : R25 : Toxic if swallowed.

R36/38 : Irritating to eyes and skin.

R45 : May cause cancer.

R46 : May cause heritable genetic damage.

R48/21/22 : Harmful : danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R60 : May impair fertility.

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 : H300 : Fatal if swallowed.

H350 : May cause cancer.

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 3 of 10

H340 : May cause genetic defects.

H360F : May damage fertility.

H319 : Causes serious eye irritation.

H315 : Causes skin irritation.

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

H411 : Toxic to aquatic life with long lasting effects.

H360D: May damage the unborn child.

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.

P273: Avoid release to the environment.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

• **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.

P302+P352: IF ON SKIN : Wash with plenty of soap and water.

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

P332+P313: If skin irritation occurs : 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.

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. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)

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.

Other hazards : • Potassium dichromate : 294.2

3. Composition/information on ingredients

Substance / Preparation : Preparation.

Hazardous component(s) : This product is hazardous.

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 4 of 10

4. First aid measures

4.1. Description of first aid measures

Inhalation : Assure fresh air breathing. Allow the victim to rest.

Skin contact : Wash contaminated clothing before reuse. Wash with plenty of soap and water. If skin irritation occurs : Get medical advice. Specific treatment (see on this label).

Eye contact : If eye irritation persists : Get medical advice. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.

Ingestion : Rinse mouth. Do NOT induce vomiting. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor.

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

Symptoms relating to use : May cause cancer. May cause genetic defects. Causes damage to organ. Fatal if swallowed. May damage fertility. Causes serious eye irritation. Causes skin irritation. May damage the unborn child.

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

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

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

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 5 of 10

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. Wash thoroughly after handling. Eliminate all ignition sources if safe to do so. 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. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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 safety glasses.
- **Others** : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

Occupational Exposure Limits : Potassium dichromate : MAC [mg/m³] : 0.03

Potassium dichromate : HTP-värden - 8 H - [mg/m³] : 5

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid.

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 6 of 10

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] : 1,056
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 [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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 7 of 10

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

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

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.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : Fatal if swallowed.

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

Irritation : Causes serious eye irritation. Causes skin irritation.

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

Mutagenicity : May cause genetic defects.

Carcinogenicity : May cause cancer.

Toxic for reproduction : May damage fertility.

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

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.

Results of PBT and vPvB assessment : • Potassium dichromate : 294.2

12.6. Other adverse effects

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 8 of 10

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.

Special precautions : Hazardous waste due to toxicity.

14. Transport information

14.1. Land transport (ADR-RID)

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

UN N° : 3287

H.I. nr : 60

ADR - Class : 6.1

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

LÉ ĩ

ADR - Classification code : T4

ADR - Group : II

ADR - Packing instructions : P001

ADR - Limited Quantity : 100 ML

ADR - Tunnel code : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

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

UN N° : 3287

IMO-IMDG - Class or division : 6.1 : Toxic substances. (9 : Miscellaneous dangerous substances and articles.)

IMO-IMDG - Packing group : II

IMO- IMDG - Packing instructions : P001

IMO-IMDG - Limited quantities : 100 ml

IMO-IMDG - Marine pollution : Yes

EMS-Nr : F-A S-A

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

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

UN N° : 3287

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

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 9 of 10

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

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing : 654

instruction

- Passenger and Cargo - Maximum : 5 L

Quantity/Packing

IATA - Cargo only : ALLOWED

- Cargo only - Packing instruction : 662

- Cargo only - Maximum Quantity/ : 60 L

Packing

IATA - Limited Quantities : 1 L

ERG-Nr : 6L

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.

- Potassium dichromate : 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

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**

Material Safety Data Sheet



ZENKER'S FIXING

VERSION : 01
DATE OF ISSUE :02-12-2016
SUPERSEDES : Nil

Product Code : 19903

Page 10 of 10

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)

For questions contact: 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**

(The statements contained herein are offered for informational purposes only and are based upon technical data that MOLYCHEM believes to be accurate. It is intended for use only by persons having the necessary technical skills and at their own discretion and risk. Since conditions and manner of use are outside our control, we make **NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE.**)