Material Safety Data Sheet	MOLYCHEM
TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL	VERSION : 02 DATE OF ISSUE : 26-08-2019 SUPERSEDES : 01
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1. Identification of the substance/mixture and of the company/undertaking **1.1. Product identifier Trade name : TETRAMETHYL AMMONIUM HYDROXIDE** SOLUTION 25% IN METHANOL Product code : 19360 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 : T: R23/24/25-R39/23/24/25 Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP) Health hazards : Specific Target Organ Toxicity - Single exposure - Category 1 -Danger (CLP: STOT SE 1) H370 Acute toxicity, dermal - Category 3 - Danger (CLP : Acute Tox. 3) H311 Acute toxicity, Inhalation - Category 3 - Danger (CLP : Acute Tox. 3) H331 Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301 **2.2.** Label elements Labelling EC 67/548 or EC 1999/45 Symbol(s) : T : Toxic



R Phrase(s) : R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed. R39/23/24/25 : Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

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

S24 : Avoid contact with skin.

S28 : After contact with skin, wash immediately with

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

S36/37 : Wear suitable protective clothing and gloves.

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).

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

Contains : Methanol - TETRAMETHYL AMMONIUM HYDROXIDE 25% IN METHANOL

Labelling Regulation EC 1272/2008 (CLP) Hazard pictograms



Signal words : Danger

Hazard statements : H301 : Toxic if swallowed.

H311 : Toxic in contact with skin.

H331 : Toxic if inhaled.

H370 : Causes damage to organ.

Precautionary statements

• **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.

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.

P307+P311: IF EXPOSED : Call a POISON CENTER or doctor.

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

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

comfortable for breathing.

P363: Wash contaminated clothing before reuse.

P361: Remove immediately all contaminated clothing.

• **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed. 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.

P501: Dispose of this material and its container to hazardous or special waste

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collection point, in accordance with local, regional, national and/or international regulation.

Contains : Methanol - TETRAMETHYL AMMONIUM HYDROXIDE 25% IN METHANOL

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
TETRAMETHYL AMMONIUM :	> 15 < 25 %	75-59-2
HYDROXIDE 25% IN METHANOL		
Methanol :	>75 < 99 %	67-56-1

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. Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. **Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water.

Immediately call a POISON CENTER or doctor. Specific treatment (see on this label). Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

Eye contact : Obtain medical attention if pain, blinking or redness persist. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

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

Symptoms relating to use : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Causes damage to organ. Danger of serious damage to health by prolonged exposure through inhalation.

Swallowing a small quantity of this material will result in serious health hazard. **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). Call a POISON CENTER or doctor. Specific treatment (see on this label).

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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. Avoid breathing dust, fume, gas, mist, vapours, spray.

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

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling : Use only outdoors or in a well-ventilated area. Do not breathe dust, fume, gas, mist, vapours, spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

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 tightly closed.

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Storage - away from : Strong bases. Strong 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 • Respiratory protection : In case of insuffic equipment. Where exposure through inhalation protection equipment is recommended. • Hand protection : Wear protective gloves. • Eye protection : Chemical goggles or safet • Others : When using, do not eat, drink or s 8.2. Control parameters Occupational Exposure Limits : No data av Occupational Exposure Limits : Methanol Methanol : OEL (UK)-STEL [ppm] : 250 Methanol : ILV (EU) - 8 H - [mg/m ³] : (260 Methanol : ILV (EU) - 8 H - [ppm] : 200 Methanol : HTP-värden - 8 H - [ppm] : 200 Methanol : HTP-värden - 8 H - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : HTP-värden - 15min - [mg/m ³] : 270 Methanol : NGV - [ppm] : 200	e exposure. cient ventilation, wear suitable respiratory on may occur from use, respiratory cy glasses. moke. vailable. : OEL (UK)-LTEL [ppm] : 200 Skin.) kin.)
Methanol : VLA-ED [ppm] : 200 Methanol : VLA-ED [mg/m ³] : 266 Methanol : VLA-EC [ppm] : 250	
Methanol : VLA-ED [mg/m ³] : 266	emical properties

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Decomposition point [°C] : N/A **Critical temperature** [°C] : No data available. **Auto-ignition temperature** [°C] : No data available. Flammability (solid, gas) : Flammable. **Flash point** [°C] : No data available. **Boiling point** [°C] : 63.9 °C **Initial boiling point** [°C] : No data available. **Final boiling point** [°C] : No data available. **Evaporation rate** : 5,2 **Vapour pressure [20°C]** : No data available. Vapour pressure mm/Hg : 29 mm Hg (@ 20°C) Vapour density : 1,1 **Density** [g/cm3] : 0,8 Relative density, gas (air=1) : N/A **Relative density, liquid (water=1)** : N/A Solubility in water [% weight] : In water, material soluble. **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.

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<u>11. Toxicological information</u>

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 : Toxic if inhaled.

• **Dermal** : Toxic in contact with skin.

• **Ingestion** : Toxic if swallowed.

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

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** : Causes damage to organ.

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.

<u>12. Ecological information</u>

12.1. Toxicity

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

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.

<u>13. Disposal considerations</u>

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with

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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** : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. **UN N°** : 3286 **H.I. nr** : 368 ADR - Class : 3 Labelling - Transport : 3 : Flammable liquid. 6.1 : Toxic substances. 8 : Corrosive substance. **ADR - Classification code** : FTC ADR - Group : II ADR - Packing instructions : P001 **ADR - Limited Quantity** : 0 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** : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. **UN N°** : 3286 **IMO-IMDG - Class or division**: 3 : Flammable liquid. (6.1 : Toxic substances.) (8 : Corrosive substance.) **IMO-IMDG - Packing group** : II IMO- IMDG - Packing instructions : P001 **IMO-IMDG - Limited quantities** : 1 L **IMO-IMDG - Marine pollution** : Yes EMS-Nr : F-E S-C 14.3. Air transport (ICAO-IATA) [English only] **Proper shipping name** : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. **UN N°** : 3286 **IATA - Class or division** : 3 : Flammable liquid. (6.1 : Toxic substances.) (8 : Corrosive substance.) IATA - Packing group : II IATA - Passenger and Cargo Aircraft : ALLOWED - Passenger and Cargo - Packing : 352 instruction - Passenger and Cargo - Maximum : 1 L 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 : <u>info@ molychem.net</u> Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co., Kulgaon, Badlapur (E), Dist.-Thane-421 503

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Quantity/Packing IATA - Cargo only : ALLOWED - Cargo only - Packing instruction : 363 - Cargo only - Maximum Quantity/ : 5 L Packing IATA - Limited Quantites : 0.5 L ERG-Nr : 3CP

<u>15. Regulatory information</u>

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 : 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 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

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