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

1.1. Product identifier

Trade name: TETRA BUTYL AMMONIUM HYDROXIDE 0.1N SOLUTION IN IPA

Product code: 19329

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: T; R23/24/25-R39/23/24/25

Xi; R36

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, Inhalation - Category 3 - Danger (CLP: Acute Tox. 3) H331

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

Acute toxicity, dermal - Category 3 - Danger (CLP: Acute Tox. 3) H311

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.

R36: Irritating to eyes.

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.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek

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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: 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 - Propan-2-ol - TETRABUTYL AMMONIUM HYDROXIDE AR

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.

H319 : Causes serious eye irritation.

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.

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.

P363: Wash contaminated clothing before reuse.

P337+P313: If eye irritation persists: Get medical advice/attention.

P361: Remove immediately all contaminated clothing.

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

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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 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: Preparation.

Hazardous component(s): This product is hazardous.

Substance name	Contents	CAS No
TETRABUTYL AMMONIUM:	> 5 < 10 %	
HYDROXIDE		
Methanol:	> 50 < 75 %	67-56-1
Propan-2-ol:	> 25 < 50 %	67-63-0

4. First aid measures

4.1. Description of first aid measures

Inhalation: Specific treatment (see on this label). Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing. **Skin contact**: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Immediately call a POISON CENTER or doctor. Specific treatment (see on this label).

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

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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).

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

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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.

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. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
- **Hand protection**: Wear protective gloves.
- Eve 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: Methanol: OEL (UK)-LTEL [ppm]: 200

Methanol: OEL (UK)-STEL [ppm]: 250

Methanol: ILV (EU) - 8 H - [mg/m³]: (260 Skin.) Methanol: ILV (EU) - 8 H - [ppm]: (200 Skin.) Methanol: HTP-värden - 8 H - [ppm]: 200

Methanol: HTP-värden - 15min - [ppm]: 250 Methanol: HTP-värden - 8 H - [mg/m³]: 270

Methanol: HTP-värden - 15min - [mg/m³]: 330

Methanol: NGV - [ppm]: 200 Methanol : NGV - $[mg/m^3]$: 250 Methanol: KTV - [ppm]: 250 Methanol: KTV - $[mg/m^3]$: 350 Methanol: VLA-ED [ppm]: 200 Methanol: VLA-ED [mg/m³]: 266

Methanol: VLA-EC [ppm]: 250

Methanol: VLA-EC [mg/m³]: 333

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Liquid.

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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): Flammable. 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

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: 11,5

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

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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 : 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: Causes serious eye irritation.

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.

12. Ecological information

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.

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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.

Special precautions: Hazardous waste due to toxicity.

14. Transport information

14.1. Land transport (ADR-RID)

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

UN N°: 1992 H.I. nr: 336 ADR - Class: 3

Labelling - Transport: 3 : Flammable liquid. 6.1 : Toxic substances.

ADR - Classification code: FT1

ADR - Group : II

ADR - Packing instructions: P001

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, N.O.S.

UN N°: 1992

IMO-IMDG - Class or division: 3: Flammable liquid. (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-E S-D

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

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

UN N°: 1992

IATA - Class or division: 3: Flammable liquid. (6.1: Toxic substances.)

IATA - Packing group : II

IATA - Passenger and Cargo Aircraft : ALLOWED

- Passenger and Cargo - Packing: 352

instruction

- Passenger and Cargo - Maximum : 1 L

Quantity/Packing

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IATA - Cargo only: ALLOWED

- Cargo only - Packing instruction: 364 - Cargo only - Maximum Quantity/: 60 L

Packing

IATA - Limited Quantites: 1 L

ERG-Nr: 3HP

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: 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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