



# **TETRAMETHYL AMMONIUM HYDROXIDE 1M SOLUTION IN METHANOL**

# **MATERIAL SAFETY DATA SHEET SDS/MSDS**

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product identifiers**

Product name : Tetramethyl Ammonium Hydroxide 1M Solution in Methanol  
Product Code : 897010

### **1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial & for professional use only.

### **1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
Ansari Road Daryaganj  
New Delhi -110002  
INDIA  
Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

### **1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

## **SECTION 2: Hazards identification**

### **2.1 Classification of the substance or mixture**

#### **Classification according to Regulation (EC) No 1272/2008**

Flammable liquids (Category 3), H226  
Acute toxicity, Oral (Category 3), H301  
Acute toxicity, Inhalation (Category 3), H331  
Acute toxicity, Dermal (Category 3), H311  
Skin corrosion (Category 1B), H314  
Specific target organ toxicity - single exposure (Category 1), H370  
Specific target organ toxicity - repeated exposure (Category 1), thymus gland, Liver, H372  
Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

### **2.2 Label elements**

#### **Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)  
H226

Flammable liquid and vapour.

H301 + H310	Fatal if swallowed or in contact with skin
H331	Toxic if inhaled.
H370	Causes damage to organs.
H372	Causes damage to organs (thymus gland, Liver) through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302 + P350	IF ON SKIN: Gently wash with plenty of soap and water.
Supplemental Hazard Statements	None

### 2.3 Other hazards

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

## SECTION 3: Composition/information on ingredients

### 3.1 Mixtures

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>Methanol</b>		
CAS-No.	67-56-1	Flam. Liq. 2; Acute Tox. 3;
EC-No.	200-659-6	STOT SE 1; H225, H301,
Index-No.	603-001-00-X	H331, H311, H370
Registration number	01-2119433307-44-XXXX	Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT SE 2, H371;
<b>Tetramethylammonium hydroxide</b>		
CAS-No.	75-59-2	Acute Tox. 2; Acute Tox. 1;
EC-No.	200-882-9	Skin Corr. 1B; STOT SE 1; STOT RE 1; Aquatic Chronic 2; H300, H310, H314, H370, H372, H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

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.

#### In case of skin contact

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

#### In case of 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.

**If swallowed**

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

**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. Danger of serious damage to health by prolonged exposure through inhalation. Swallowing a small quantity of this material will result in serious health hazard. Causes damage to organ. Causes severe skin burns and eye damage.

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

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).

**SECTION 5: Firefighting 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**

Under fire conditions, hazardous fumes will be present. Thermal decomposition generates: Corrosive vapours.

**5.3 Advice for firefighters**

**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.

**5.4 Further information**

No data available

**SECTION 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**

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

**6.3 Methods and materials for containment and cleaning up**

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

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

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

**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)**

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid Colour: Colourless
b) Odour	Characteristic.
c) Odour Threshold	160 ppm
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	23.3 hPa at 20 °C
l) Vapour density	No data available
m) Relative density	No data available

n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Direct sunlight, Extremely high or low temperatures.

### 10.5 Incompatible materials

Strong acids, Strong bases.

### 10.6 Hazardous decomposition products

**Hazardous decomposition products:** Fumes, Carbon monoxide, Carbon dioxide. Thermal decomposition generates: Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute inhalation toxicity

Toxic if inhaled.

#### Acute Dermal toxicity

Toxic in contact with skin.

#### Acute ingestion toxicity

Toxic if swallowed.

#### Skin corrosion/irritation

Causes severe skin burns and eye damage.

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity

No data available

**Specific target organ toxicity - single exposure**

Causes damage to organ.

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

No data available

**SECTION 12: Ecological information****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

The substance does not fulfill the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**12.6 Other adverse effects**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

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.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 3286

IMDG: 3286

IATA: 3286

**14.2 UN proper shipping name**

ADR/RID: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Methanol, Tetramethylammonium hydroxide)

IMDG: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Tetramethylammonium hydroxide, Methanol)

IATA: Corrosive liquid, flammable, n.o.s. (Tetramethylammonium hydroxide, Methanol)

**14.3 Transport hazard class(es)**

ADR/RID: 3 (6.1,8)

IMDG: 3 (6.1,8)

IATA: 3 (6.1,8)

**14.4 Packaging group**

ADR/RID: II

IMDG: II

IATA: II

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Fatal if swallowed.
H301 + H310	Fatal if swallowed or in contact with skin
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs (/\$/*_ORGAN_REPEAT\$/) through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.