

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL MSDS



CAS No: MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Mixture  
:  
Product code : 06227

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

##### 1.2.2. Uses advised against

No additional information available

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

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

### SECTION 2: Hazards identification

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

##### Classification according to Directive 67/548/EEC or 1999/45/EC

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

Full text of R-phrases: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL

## Safety Data Sheet

### 2.2. Label elements

#### Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols



T - Toxic

R-phrases

: 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-phrases

: S4 - Keep away from living quarters  
S24 - Avoid contact with skin  
S28 - After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)  
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 where possible)  
S59 - Refer to manufacturer/supplier for information on recovery/recycling

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Methanol	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	75 - 99	F; R11 T; R23/24/25 T; R39/23/24/25	Flam. Liq. 2, H225 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Oral), H301 STOT SE 1, H370
TETRAMETHYL AMMONIUM HYDROXIDE 25% IN METHANOL	(CAS No) 75-59-2	15 - 25	Not classified	Not classified

Full text of R- and H-phrases: see section 16

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL

## Safety Data Sheet

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Immediately call a POISON CENTER or doctor/physician. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Specific measures (see ... on this label). Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Rinse mouth. Obtain emergency medical attention. Immediately call a POISON CENTER or doctor/physician. Specific treatment (see ... on this label).

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

Symptoms/injuries	: Causes damage to organs. Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	: Toxic if inhaled.
Symptoms/injuries after skin contact	: Toxic in contact with skin.
Symptoms/injuries after ingestion	: Toxic if swallowed.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
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#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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##### 6.1.2. For emergency responders

Protective equipment	: Avoid breathing dust/fume/gas/mist/vapours/spray.
Emergency procedures	: Stop release.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
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#### 6.4. Reference to other sections

No additional information available

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL

## Safety Data Sheet

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Do not breathe dust/fume/gas/mist/vapours/spray.
Hygiene measures	: Do not eat, drink or smoke when using this product. Wash ... thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container. Keep container tightly closed. Store in a dry place. Protect from moisture.
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#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Hand protection	: protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear Colorless.
Odour	: alcoholic odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: 5.2
Melting point	: -97.8 °C
Freezing point	: No data available
Boiling point	: 63.9 °C
Flash point	: 6 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable

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Vapour pressure	: 29 mm Hg (at 20°C)
Relative vapour density at 20 °C	: 1.1
Relative density	: No data available
Density	: 0.8 g/cm <sup>3</sup>
Solubility	: Water: Soluble in water
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Highly flammable liquid and vapour.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Overheating. Open flame. Heat. Sparks.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Irritation	: Not classified
Corrosivity	: Not classified
Sensitisation	: Not classified
Repeated dose toxicity	: Not classified
Carcinogenicity	: Not classified
Mutagenicity	: Not classified

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## Safety Data Sheet

Toxicity for reproduction : Not classified

Potential adverse human health effects and symptoms : Toxic if swallowed. Toxic in contact with skin.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Ecology - waste materials : Hazardous waste due to toxicity.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 3286

UN-No. (IMDG) : 3286

UN-No.(IATA) : 3286

UN-No.(ADN) : 3286

UN-No. (RID) : 3286

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

Proper Shipping Name (IATA) : FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL

## Safety Data Sheet

Proper Shipping Name (ADN)	: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
Proper Shipping Name (RID)	: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.
Transport document description (ADR)	: UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II, (D/E)
Transport document description (IMDG)	: UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II
Transport document description (IATA)	: UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II
Transport document description (ADN)	: UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II
Transport document description (RID)	: UN 3286 FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., 3 (6.1+8), II

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3 (6.1, 8)  
Danger labels (ADR) : 3, 6.1, 8



#### IMDG

Transport hazard class(es) (IMDG) : 3 (6.1, 8)  
Danger labels (IMDG) : 3, 6.1, 8



#### IATA

Transport hazard class(es) (IATA) : 3 (6.1, 8)  
Hazard labels (IATA) : 3, 6.1, 8



#### ADN

Transport hazard class(es) (ADN) : 3 (6.1, 8)  
Danger labels (ADN) : 3, 6.1, 8



#### RID

Transport hazard class(es) (RID) : 3 (6.1, 8)  
Danger labels (RID) : 3, 6.1, 8

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## Safety Data Sheet



### 14.4. Packing group

Packing group (ADR)	: II
Packing group (IMDG)	: II
Packing group (IATA)	: II
Packing group (ADN)	: II
Packing group (RID)	: II

### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: FTC
Special provision (ADR)	: 274
Limited quantities (ADR)	: 1L
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T11
Portable tank and bulk container special provisions (ADR)	: TP2, TP27
Tank code (ADR)	: L4BH
Tank special provisions (ADR)	: TU15
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13, CV28
Special provisions for carriage - Operation (ADR)	: S2, S22
Hazard identification number (Kemler No.)	: 368
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3WE
APP code	: A(fl)

#### - Transport by sea

Special provision (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC99



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## Safety Data Sheet

Tank instructions (IMDG)	: T11
Tank special provisions (IMDG)	: TP2, TP13, TP27
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-C
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Segregation (IMDG)	: SG5, SG8
MFAG-No	: 131

### - Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y340
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 352
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 363
CAO max net quantity (IATA)	: 5L
ERG code (IATA)	: 3CP

### - Inland waterway transport

Classification code (ADN)	: FTC
Special provisions (ADN)	: 274, 802
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2

### - Rail transport

Classification code (RID)	: FTC
Special provision (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BH
Special provisions for RID tanks (RID)	: TU15
Transport category (RID)	: 2
Special provisions for carriage – Loading and unloading (RID)	: CW13, CW28
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 368

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

# TETRAMETHYL AMMONIUM HYDROXIDE SOLUTION 25% IN METHANOL

## Safety Data Sheet

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

##### 15.1.2. National regulations

###### Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

###### Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

#### 15.2. Chemical safety assessment

No additional information available

### SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 1	Specific target organ toxicity — single exposure, Category 1
H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin

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H331	Toxic if inhaled
H370	Causes damage to organs
R11	Highly flammable
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
F	Highly flammable
T	Toxic

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*