





# Material Safety Data Sheet Tetramethylammonium Hydroxide, 10% MSDS

# **Section 1: Chemical Product and Company Identification**

Product Name: Tetramethylammonium Hydroxide, 10%

Catalog Codes: SLT1327, SLT2617

CAS#: Mixture.

**RTECS:** PA0875000

TSCA: TSCA 8(b) inventory: Tetramethylammonium

Hydroxide; water

CI#: Not available.

**Synonym:** Tetramethylammonium Hydroxide, 10%

Solution in Water

Chemical Name: Not applicable.
Chemical Formula: Not applicable.

**Contact Information:** 

Sciencelab.com, Inc. 14025 Smith Rd. Houston, Texas 77396

US Sales: 1-800-901-7247

International Sales: 1-281-441-4400
Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:

1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

# **Section 2: Composition and Information on Ingredients**

#### Composition:

| Name                          | CAS#      | % by Weight |
|-------------------------------|-----------|-------------|
| Water                         | 7732-18-5 | 89-91       |
| Tetramethylammonium Hydroxide | 75-59-2   | 9-11        |

Toxicological Data on Ingredients: Tetramethylammonium Hydroxide LD50: Not available. LC50: Not available.

## **Section 3: Hazards Identification**

#### **Potential Acute Health Effects:**

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, . Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

## **Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver, mucous membranes, upper

respiratory tract, skin, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## **Section 4: First Aid Measures**

## Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

#### **Skin Contact:**

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

#### **Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

#### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

#### Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

## Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

# **Section 5: Fire and Explosion Data**

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

## Section 6: Accidental Release Measures

## **Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

## Large Spill:

Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

# **Section 7: Handling and Storage**

#### **Precautions:**

Keep locked up.. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

# **Section 8: Exposure Controls/Personal Protection**

## **Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

#### **Personal Protection:**

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

# Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

# **Section 9: Physical and Chemical Properties**

Physical state and appearance: Liquid.

Odor: Ammoniacal.

Taste: Not available.

**Molecular Weight:** Not applicable. **Color:** Colorless to light yellow. Clear

pH (1% soln/water): Basic Boiling Point: 110°C (230°F) Melting Point: Not available.

Critical Temperature: Not available.

Specific Gravity: 1.02 (Water = 1)

Vapor Pressure: 2.3 kPa (@ 20°C)

**Vapor Density:** 3.14 (Air = 1)

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available. lonicity (in Water): Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:** Easily soluble in cold water, hot water.

# Section 10: Stability and Reactivity Data

Stability: The product is stable.

**Instability Temperature:** Not available.

Conditions of Instability: Incompatible materials

**Incompatibility with various substances:** Reactive with oxidizing agents, metals, acids.

Corrosivity: Non-corrosive in presence of glass.

## **Special Remarks on Reactivity:**

Incompatible with oxidizing agents such as perchlorates, nitrates, permanganates, chlorates, chlorine, bromine, peroxides.

Also incompatible with acid chlorides, acid anhydrides, alkali metals, halogens, aluminum.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

# **Section 11: Toxicological Information**

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute dermal toxicity (LD50): 25 mg/kg [Guinea pig].

## **Chronic Effects on Humans:**

May cause damage to the following organs: kidneys, liver, mucous membranes, upper respiratory tract, skin, eyes, central nervous system (CNS).

#### Other Toxic Effects on Humans:

Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

#### **Special Remarks on other Toxic Effects on Humans:**

Acute Potential Health Effects: Skin: Causes skin burns. It may be absorbed through the skin and cause possible systemic effects and affect respiration, and behavior/central nervous system. Eyes: Causes eye burns. It may cause eye damage. Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath, respiratory failure, pneumonitis, and pulmonary edema. May cause chemical burns to the respiratory tract. May affect behavior/Central Nervous system and cause central nervous system depression. Ingestion: Causes digestive tract burns (e.g. burns to the lips, tongue, oral mucose, upper airway, esophagus, and occasionally the stomach). May cause severe and permanent damage to the digestive tract. It may also affect behavior/central nervous system.

# **Section 12: Ecological Information**

Ecotoxicity: Not available.

BOD5 and COD: Not available.

## **Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

# **Section 13: Disposal Considerations**

#### **Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

# **Section 14: Transport Information**

**DOT Classification:** Class 8: Corrosive material

Identification: : Tetramethylammonium Hydroxide, Solution UNNA: 1835 PG: II

Special Provisions for Transport: Not available.

# **Section 15: Other Regulatory Information**

#### Federal and State Regulations:

Connecticut hazardous material survey.: Tetramethylammonium Hydroxide New Jersey: Tetramethylammonium Hydroxide TSCA 8(b) inventory: Tetramethylammonium Hydroxide; water

## Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

#### Other Classifications:

WHMIS (Canada): CLASS E: Corrosive liquid.

#### DSCL (EEC)

R34- Causes burns. S24/25- Avoid contact with skin and eyes. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

**Personal Protection:** 

## National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0
Reactivity: 0

Specific hazard:

# **Protective Equipment:**

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

## **Section 16: Other Information**

References: Not available.

Other Special Considerations: Not available.

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