

# Hangzhou Yanshan Chemical Co., Ltd.

Add: Room 1804, International building, 998 Binhe road, Binjiang District, Hangzhou, 310053, China

Tel: 86-571-86696867 Fax: 86-571-56534643 E-mail: lan@yanshan-chem.com

## Material Safety Data Sheet

### For TEACL

#### Section 1 - Product and Company Identification

<b>Product name</b> : Tetraethylammonium Chloride 99%	
<b>Other names</b> : ---	
Product use: widely used in Phase transfer catalyst	
<b>Supplier's name</b> : Hangzhou Yanshan Chemical Co., Ltd.	
<b>Supplier's address</b> : Room 1804, International building, 998 Binhe road, Binjiang District, Hangzhou, 310053, China	
<b>Supplier's phone</b> : 86-571-86696867	<b>Emergency phone</b> : 86-571-86696867
<b>FAX</b> : 86-571-56534643	

#### Section 2 - Hazards Identification

<b>Emergency overview:</b> Harmful. Harmful if swallowed. Irritating to eyes, respiratory system and skin. Target organ(s): Nerves. Heart.
<b>Hmis Rating</b> HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 1
<b>Nfpa Rating</b> FLAMMABILITY: 0 REACTIVITY: 1
For additional information on toxicity, please refer to Section 11.

#### Section 3 - Composition/Information On Ingredients

<b>Chemical name</b> : Tetraethylammonium Chloride	
<b>Synonyms</b> : ---	
<b>CAS No.</b> : 56-34-8	
<b>Ingredient contributing to the hazard(%)</b> :	
Tetramethylammonium Hydroxide	99%

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## Section 4 - First Aid Measures

### Oral exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

### Inhalation exposure

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

### Dermal exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

### Eye exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

## Section 5 - Fire Fighting Measures

### Autoignition temp

N/A

### Flammability

N/A

### Extinguishing media

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### Firefighting

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

### Exposure hazards

Material: Irritant. Harmful solid.

## Section 6 - Accidental Release Measures

### Procedure to be followed in case of leak or spill

Evacuate area.

### Procedure(s) of personal precaution(s)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

### Methods for cleaning up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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## Environmental precaution(s)

Avoid contaminating water supply. Avoid contaminating sewers and waterways with this material.

## Section 7 - Handling and Storage

**Handling :** User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage :** Suitable: Keep tightly closed. Store in a cool dry place. Store with desiccant.

## Section 8 - Exposure Controls & Personal Protection

### Engineering controls

Safety shower and eye bath. Mechanical exhaust required.

### Personal protective equipment

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

### General hygiene measures

Wash thoroughly after handling.

## Section 9 - Physical & Chemical Properties

<b>Physical state :</b> Solid	<b>Appearance :</b> White crystal powder
<b>Colour :</b> White	<b>Odor:--</b>
<b>pH value :</b> 5.0~9.0	<b>Boiling point/boiling range :</b> > 300°C
<b>Decomposition temp.:</b> 120°C @ 760.00mm Hg;	<b>Flash point :</b> Not applicable;
<b>Melting point :</b> Not available	<b>Test method :</b> ( ) open ( ) close
<b>Autoignition temp. :</b> Not applicable;	<b>Explosion properties :</b> Not applicable;
<b>Vapor pressure :</b> --	<b>Vapor density--</b>
<b>Density :</b> --	<b>Solubility :</b> soluble in water;

## Section 10 - Stability & Reactivity Data

<b>Stability :</b> Stable.
<b>Conditions to avoid :</b> Moisture. Heat.
<b>Materials to avoid :</b> Strong oxidizing agents.
<b>Hazardous decomposition products :</b> Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

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## Section 11 - Toxicological Information

### Route of exposure :

Skin Absorption: May be harmful if absorbed through the skin.

Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: Harmful if swallowed.

Multiple Routes: Causes eye and skin irritation.

### Target organ(s) or system(s)

Nerves. Heart.

### Signs and symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Toxicity data

Oral

Rat

2630 mg/kg

LD50

Remarks: Behavioral: Somnolence (general depressed activity).

Behavioral: Tremor. Behavioral: Muscle weakness.

Subcutaneous

Rat

200 MG/KG

LD50

Intravenous

Rat

56 MG/KG

LD50

Remarks: Behavioral: Tremor. Behavioral: Somnolence (general depressed activity). Behavioral: Muscle weakness.

Intramuscular

Rat

110 MG/KG

LD50

Remarks: Behavioral: Somnolence (general depressed activity).

Behavioral: Tremor. Behavioral: Muscle weakness.

Oral

Mouse

833 mg/kg

LD50

Intraperitoneal

Mouse

65 MG/KG

LD50

Remarks: Behavioral: Somnolence (general depressed activity).

Behavioral: Tremor. Behavioral: Muscle weakness.

Intravenous

Mouse

37 MG/KG

LD50

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Intravenous

Dog

36 MG/KG

LD50

Remarks: Behavioral:Tremor. Behavioral:Somnolence (general depressed activity). Behavioral:Muscle weakness.

Intramuscular

Dog

58 MG/KG

LD50

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Tremor. Behavioral:Muscle weakness.

### Section 12 - Ecological Information

No information available.

### Section 13 - Disposal Considerations

#### Methods of disposal :

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an After burner and scrubber. Observe all federal, state, and local environmental regulations.

### Section 14 - MSDS Transport Information

#### DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

#### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

### Section 15 - Regulatory Information

#### EU Additional classification

Symbol of Danger: Xn

Indication of Danger: Harmful.

R: 22-36/37/38

Risk Statements: Harmful if swallowed. Irritating to eyes, respiratory system and skin.

S: 26-36

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

#### US Classification and label text

Indication of Danger: Harmful.

Risk Statements: Harmful if swallowed. Irritating to eyes,

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respiratory system and skin.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements: Target organ(s): Nerves. Heart.

## United states regulatory information

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

## Canada regulatory information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

## Section 16 - Other Information

### Disclaimer

For R&D use only. Not for drug, household or other uses.

### Warranty

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. Hangzhou Yanshan Chem, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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<b>Prepared by</b>	<b>Supplier</b> : Hangzhou Yanshan chemical Co.,Ltd.		
	<b>Address</b> : Room 1804,International building,998 Binhe road, Binjiang District, Hangzhou, 310053, China		
	<b>TEL</b> : 86-571-86696867		
	<b>FAX</b> : 86-571-56534643		
	<b>Name</b> :		<b>Name</b> :
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