

CHAITANYA CHS, 2<sup>nd</sup> FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.  
 CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

## MATERIAL SAFETY DATA SHEET (MSDS)

### TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)

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

##### 1.1. Product identifier

Trade name : TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)

Product code : T0204900100

Identification of the product : TETRAMETHYL AMMONIUM HYDROGEN SULFATE  
 CAS No: 103812-00-6

##### 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 : SUVCHEM  
 Chaitanya Tower, 2nd Floor, Office # 206,  
 Siddharth Nagar, S.V. Road,  
 Goregaon (West), Mumbai - 400062,  
 Maharashtra, India.  
 Contact: +91 22 28725393 / 94 / 95  
 Email ID: info@suvchem.com/care@suvchem.com

##### 1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

#### 2. Hazards identification -DSD

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

###### Classification EC 67/548 or EC 1999/45

Classification : Xi; R36/37/38

###### Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -  
 Category 3 - Warning (CLP : STOT SE 3) H335  
 Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319  
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315

##### 2.2. Label elements

###### Labelling EC 67/548 or EC 1999/45

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**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**2. Hazards identification -DSD (continued)**

Symbol(s)



Symbol(s)

: Xi : Irritant

R Phrase(s)

: R36/37/38 : Irritating to eyes, respiratory system and skin.

S Phrase(s)

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

S36 : Wear suitable protective clothing.

**Labelling Regulation EC 1272/2008 (CLP)**

Hazard pictograms



Signal words

: Warning

Hazard statements

: H319 : Causes serious eye irritation.

H315 : Causes skin irritation.

H335 : May cause respiratory irritation.

Precautionary statements

**• Prevention**

: P280: Wear protective gloves, protective clothing, eye protection, face protection.

P271: Use only outdoors or in a well-ventilated area.

P261: Avoid breathing dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

**• Response**

: P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P332+P313: If skin irritation occurs : Get medical advice.

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.

**• Storage**

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

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.

**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

: TETRAMETHYL AMMONIUM HYDROGEN SULFATE

Substance.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**3. Composition/information on ingredients (continued)**

Contains no other components or impurities which will influence the classification of the product.

**4. First aid measures**
**4.1. Description of first aid measures**

- Inhalation** : Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : If skin irritation occurs : Get medical advice. Specific treatment (see on this label). Wash contaminated clothing before reuse. Wash with plenty of soap and water.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice.
- Ingestion** : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth.

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

- Symptoms relating to use** : Causes serious eye irritation.  
Causes skin irritation. May cause respiratory irritation.

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

- General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**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.

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**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**6. Accidental release measures**
**6.1. Personal precautions, protective equipment and emergency procedures**

**For emergency responders** : Equip cleanup crew with proper protection.  
Ventilate area.

**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** : On land, sweep or shovel into suitable containers. Minimize generation of dust.  
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. Wash thoroughly after handling.  
Wash thoroughly after handling.

**Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

**Special precautions** : Avoid breathing dust, fume, gas, mist, vapours, spray.

**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** : Avoid all unnecessary exposure.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**8. Exposure controls/personal protection (continued)**

- |                          |   |
|--------------------------|---|
| • Respiratory protection | : Wear approved mask.                     |
| • Hand protection        | : Wear protective gloves.                 |
| • Skin protection        | : Wear suitable protective clothing.      |
| • Eye 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.

**9. Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

|  |                      |
|--|----------------------|
| Physical state at 20 °C                | : Solid.             |
| Colour                                 | : White crystalline  |
| Odour                                  | : Odorless           |
| Odour threshold                        | : No data available. |
| pH value                               | : Not applicable.    |
| Melting point [°C]                     | : 290 °C             |
| Decomposition point [°C]               | : N/A                |
| Critical temperature [°C]              | : N/A                |
| Auto-ignition temperature [°C]         | : N/A                |
| Flammability (solid, gas)              | : N/A                |
| Flash point [°C]                       | : N/A                |
| Boiling point [°C]                     | : N/A                |
| Initial boiling point [°C]             | : N/A                |
| Final boiling point [°C]               | : N/A                |
| Evaporation rate                       | : N/A                |
| Vapour pressure [20°C]                 | : N/A                |
| Vapour pressure mm/Hg                  | : N/A                |
| Vapour density                         | : N/A                |
| Density [g/cm <sup>3</sup> ]           | : N/A                |
| Relative density, gas (air=1)          | : N/A                |
| Relative density, liquid (water=1)     | : N/A                |
| Solubility in water [% weight]         | : N/A                |
| Solubility in water                    | : N/A                |
| Log Pow octanol / water at 20°C        | : No data available. |
| Solubility                             | : N/A                |
| Viscosity at 40°C [mm <sup>2</sup> /s] | : N/A                |

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**9. Physical and chemical properties (continued)**
**9.2. Other information**

|                              |                      |
|------------------------------|----------------------|
| Explosive properties         | : N/A                |
| Explosion limits - upper [%] | : N/A                |
| Explosion limits - lower [%] | : N/A                |
| 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**

|                    |                               |
|--------------------|-------------------------------|
| 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**
**Acute toxicity**

|              |   |
|--------------|---|
| • Inhalation | : Based on available data, the classification criteria are not met. |
| • Dermal     | : Based on available data, the classification criteria are not met. |
| • Ingestion  | : Based on available data, the classification criteria are not met. |

**Corrosion**

: Based on available data, the classification criteria are not met.

**Irritation**

 : Causes serious eye irritation.  
 Causes skin irritation.  
 May cause respiratory irritation.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**
**11. Toxicological information (continued)**

|                               |   |
|-------------------------------|---|
| <b>Sensitization</b>          | : Based on available data, the classification criteria are not met. |
| <b>Mutagenicity</b>           | : Based on available data, the classification criteria are not met. |
| <b>Carcinogenicity</b>        | : Based on available data, the classification criteria are not met. |
| <b>Toxic for reproduction</b> | : Based on available data, the classification criteria are not met. |
| <b>STOT-single exposure</b>   | : Based on available data, the classification criteria are not met. |
| <b>STOT-repeated exposure</b> | : Based on available data, the classification criteria are not met. |
| <b>Aspiration hazard</b>      | : Based on available data, the classification criteria are not met. |

**12. Ecological information**
**12.1. Toxicity**

**Toxicity information** : Not established.

**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.

**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.

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**TETRA METHYL AMMONIUM HYDROGEN SULPHATE MONOHYDRATE (FOR SYNTHESIS)**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

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