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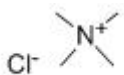
## Technical Data Sheet

# Tetramethylammonium chloride (TMAC)

### Product Information

|                  |  |
|------------------|--|
| Chemical Name    | Tetramethylammonium chloride   |
| CAS #            | 75-57-0  |
| Formula          | C <sub>4</sub> H <sub>12</sub> ClN   |
| Molecular Weight | 109.6  |
| Synonyms         | TMAC, Methanaminium, N,N,N-trimethyl-, chloride<br>N,N,N-trimethylmethanaminium chloride |

### Chemical Structure



### Description

TMAC is a kind of white crystal powder, Incompatible with strong oxidizing agents, water. Hygroscopic. It can be used as polarographic analysis reagents which is widely used in the electronics industry.

### Physical Properties

|                                   |                        |
|-----------------------------------|------------------------|
| Appearance                        | White crystal powder   |
| Melting point, °C .               | >300 °C(lit.)          |
| Density @ 20°C, g/cm <sup>3</sup> | 1,17 g/cm <sup>3</sup> |
| Water Solubility                  | >60 g/100 ml (20 °C)   |

### Specification

|            |                      |
|------------|----------------------|
| Appearance | White crystal powder |
| Assay, %   | ≥ 99.00              |
| Water, %   | ≤ 0.5                |

## Safety

Toxic if swallowed. Harmful in contact with skin. Irritating to eyes, respiratory system and skin.  
Always refer to the Material Safety Data Sheet (MSDS)

## Applications

1. It can be used as polarographic analysis reagents which is widely used in the electronics industry.
2. Tetramethylammonium chloride is the phase transfer catalyst in organic synthesis with its catalytic activity being stronger than triphenylphosphine and triethylamine. At room temperature, it is a white crystalline powder, and is volatile, irritant, and easy to absorb moisture. It is easily soluble in methanol, soluble in water and hot ethanol but insoluble in ether and chloroform. Being heated to above 230 °C causes its decomposition into trimethylamine and methyl chloride. Median lethal dose (mice, intraperitoneal) is around 25mg/kg. It is also used for the synthesis of liquid crystal epoxy compound, and Pope and polarographic analysis, as well as electronic industry.

## Packaging

25kg per bag,14MT/FCL without pallet

## Storage & Handling

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

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