

## Technical Data Sheet (TDS)

### 1. Product Overview

- Product Name: Allyltrimethylammonium Chloride
- English Name: Allyltrimethylammonium Chloride
- CAS Number: 1516-27-4
- Formula:  $C_6H_{14}NCl$
- Molecular Weight: 135.64 g/mol
- Product Characteristics: High-purity aqueous solution, cationic monomer with vinyl functionality. Excellent reactivity for polymerization, soluble in water and polar solvents. Used as intermediate for cationic polymers and modifiers.

### 2. Technical Specifications

Item	Specification
Appearance	Colorless to pale yellow liquid
Purity ( $C_6H_{14}NCl$ )	$\geq 60.0\%$
Water Content	38.0-40.0%
pH Value (25°C)	6.0-8.0
Heavy Metals (Pb)	$\leq 5$ ppm
Iron (Fe)	$\leq 3$ ppm
Chloride ( $Cl^-$ )	24.0-26.0%
Viscosity (25°C)	10-50 mPa·s
Density (25°C)	1.07-1.10 g/cm <sup>3</sup>
Stability	Stable at 0-30°C

### 3. Product Advantages

- High purity and reactivity for polymerization.
- Water-soluble for easy formulation.
- Cationic nature for targeted interactions with anionic substrates.
- Consistent quality with strict batch testing.

### 4. Application Fields

- Polymer Synthesis: Monomer for cationic polymers (water treatment flocculants).
- Water Treatment: Intermediate for coagulants and flocculants.
- Textile Industry: Cationic modifier for fabrics (improves dye adhesion).
- Cosmetics: Intermediate for hair conditioners (cationic surfactants).
- Other: Adhesives, paper sizing agents, ion exchange resins.

### 5. Usage Methods

- Polymerization: Use as monomer (10-50% mass ratio) with initiators; react at 50-80°C.
- Textile Modification: Dilute to 5-10% solution; pad or spray on fabrics.
- Optimal Conditions: Apply at 15-40°C; avoid strong oxidizing agents.



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### 6. Packaging & Storage

- Packaging: 25 kg HDPE drums, 200 kg HDPE drums, 1000 kg IBC totes.
- Storage: Cool, dry, well-ventilated warehouse ( $\leq 30^{\circ}\text{C}$ ); keep sealed.
- Shelf Life: 12 months (unopened).
- Transportation: Handle as UN3267; avoid collision, moisture.

### 7. Safety & Protection

- Wear nitrile gloves, chemical splash goggles, and respirator during handling.
- Operate in well-ventilated area; avoid skin/eye contact and ingestion.
- Rinse immediately with plenty of water if contact occurs.

### 8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Each batch accompanied by COA.
- Provide technical support for polymerization and application.



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