



Tetraethoxysilane

AB111385 | CAS 78-10-4

1. Product Identification

Chemical Name: Tetraethoxysilane

Synonyms: Tetraethyl orthosilicate, Silicon tetraethoxide, TEOS

Molecular Formula: C₈H₂₀O₄Si

Molar Mass: 208.33 g/mol

2. Physical and Chemical Properties

Purity: 99%

Appearance: Colorless, clear liquid

Boiling Point: approx. 167-169 °C

Density: approx. 0,93 g/cm³ at 25 °C

Refractive Index: 1.381–1.384 at 20 °C

Solubility: Soluble in ethanol; hydrolysis initiates silanol group formation

The data represent typical values (no product specification)

3. Applications

- Crosslinking agent in silicone polymers
- Passivation of inorganic fillers
- Intermediate in chemical synthesis
- Precursor in sol-gel systems
- Anticorrosion Coatings
- Precursor for CVD-processes creating glass-like SiO_x-surfaces
- Raw material for the synthesis of polysiloxane networks
- Drying agent

4. Reactivity

Hydrolysis leads to the formation of reactive silanol groups

5. Storage and Handling

Storage Conditions: Store in a cool, dry, and tightly sealed container. Protect from moisture and direct sunlight.

Avoid direct contact with moisture to prevent hydrolysis.

Methanol release caution; it is recommended to work in well-ventilated spaces.

6. Available Quantities

AB111385 is available in following quantities:

- Shop AB111385 | CAS 78-10-4

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets (MSDS). They are available on the abcr website

- https://abcr.com/de_en/ab111385