



Tetramethylsilane

AB111419 | CAS 75-76-3

1. Product Identification

Chemical Name: Tetramethylsilane

Synonyms: TMS

Molecular Formula: C₄H₁₂Si

Molar Mass: 88.22 g/mol

2. Physical and Chemical Properties

Purity: 99.9% (NMR grade)

Appearance: Colorless liquid

Boiling Point: approx. 26 °C

Density: approx. 0.641- 0.648 g/cm³ at 25 °C

Refractive Index: 1.3582 1.3588 at 20 °C

Solubility: Soluble in organic solvents, almost insoluble in water

The data represent typical values (no product specification)

3. Applications

- Precursor for chemical vapor deposition (CVD) creating hard, scratch-resistant SiC-films
- Methylation agent in trans-metalation reactions
- Internal standard in NMR spectroscopy

4. Reactivity

Due to low vapor pressure easily vaporizable precursor for PE-CVD processes

Deprotonation upon treatment with butyllithium to give trimethylsilylmethyl lithium, a widely used alkylating agent

5. Storage and Handling

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

6. Available Quantities

AB111419 is available in following quantities:

- > Shop AB111419 | CAS 75-76-3

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/ab111419