China Factory Best price Cylinder Teos Tetraethylorthosilicate

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CMC
- Certification: COA
- Model Number: Teos
- Minimum Order Quantity: 1kg
- Price: US $10/kg
- Packaging Details: Cylinder/Tank
- Delivery Time: 15 days
- Payment Terms: L/C, T/T
- Supply Ability: 50000kg/month

Product Specification

- Product Name: Tetraethylorthosilicate
- Transport: By Sea
- Valve: Customized
- Widely Used: Semiconductor Technology
- Transport Package: Customizable
- Specification: Customizable
- Trademark: CMC
- Origin: China
- HS Code: 2812190091
- Supply Ability: 200t/Year
- CAS No.: 78-10-4
- Formula: Si (Oc2h5) 4
- EINECS: 201-083-8
- Constituent: Industrial Pure Air
- Grade Standard: Electronic Grade

More Images




Product Description

Tetraethylorthosilicate (TEOS), also known as tetraethoxysilane, is an organosilicon compound with the chemical formula Si(OC2H5)4. It is a colorless liquid that belongs to the group of alkoxysilanes. Here are some key points about tetraethylorthosilicate:

Structure and Properties: Tetraethylorthosilicate consists of a central silicon atom (Si) bonded to four ethoxy (OC2H5) groups. It is a highly reactive compound with a low boiling point. TEOS is soluble in organic solvents but hydrolyzes readily in the presence of water.

Synthesis and Production: Tetraethylorthosilicate is typically synthesized by the reaction of silicon tetrachloride (SiCl4) with ethanol (C2H5OH). The reaction produces TEOS and hydrochloric acid (HCl) as a byproduct. It is commercially available and widely used in various industries.

Applications:

Silica Production: TEOS is a precursor for the production of silica (SiO2) and various silicate materials. It is used as a starting material in the synthesis of sol-gel derived silica films, coatings, and nanoparticles. These materials find applications in optics, electronics, catalyst supports, and protective coatings.

Semiconductor Industry: TEOS is utilized in the fabrication of silicon-based thin films and microelectronics. It can be used as a source of silicon dioxide (SiO2) for the deposition of insulating layers in semiconductor devices and integrated circuits.

Optical Fibers: TEOS is employed in the manufacturing of optical fibers. It helps in the production of high-purity silica glass, which is used as the core material in optical fiber cables for telecommunications and data transmission.

Adhesives and Sealants: TEOS is used as a binder or coupling agent in adhesives, sealants, and coatings. It improves the adhesion and durability of these materials on various substrates, including glass, metals, and ceramics.

Surface Treatments: TEOS can be used as a surface treatment agent to modify the surface properties of materials. It can enhance hydrophobic or hydrophilic characteristics, improve chemical resistance, or provide anti-reflective coatings.

Safety Considerations: Tetraethylorthosilicate is flammable and can cause skin and eye irritation. It is also harmful if inhaled or swallowed. Proper handling, storage, and personal protective equipment should be used when working with TEOS or any other hazardous chemicals.

Tetraethylorthosilicate is a versatile compound with a wide range of applications in materials science, electronics, optics, and other industries. Its ability to form silica-based materials makes it valuable in various technological advancements and manufacturing processes.

Basic Info.

Model NO.	Si (Oc2h5) 4	Transport Package	Y-Cylinder, T-Drum, Tt, Tanker
Specification	20L, 40L, 280L and customizable	Trademark	CMC
Origin	Suzhou, China	HS Code	2812190091
Production Capacity	200t/Year		

Product specfication:

CAS NO.	11099-06-2
Purity, %	99%min
Molecular weight	740
Density(ρ20)g/cm3	1.05-1.07
Silicon Dioxide	40-42%

Detailed

Photos


TEOS


TEOS
備用

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