

PROSILANE™ SC-5420

TETRAETHYL ORTHOSILICATE [PURITY 99%]

PRODUCT DESCRIPTION

SC-5420, Tetraethyl orthosilicate (TEOS) is colorless liquid with a slight odor of ethanol. It is an organosilicon compound widely used as a precursor in the sol-gel process for synthesizing silica-based materials. The ethyl ester of orthosilicic acid, has a low-viscosity liquid with an SiO₂ content of 28.5%.

TYPICAL PRODUCT DATA*

Property	Unit	Typical Value
CAS#	-	78-10-4
Molecular Weight	g/mol	208.33
Formula		C ₈ H ₂₀ O ₄ Si
Appearance	-	Colorless clear liquid
Boiling Point	°C	168
Flash Point	°C	46
Refractive Index	-	1.384
Density	g/cm ³	0.934
Purity	%	≥99%

* These values are not intended to be used as specifications but as suggested characteristics

PACKAGING

The size of the available packages can be checked with Sales Department. SC-5420 is typically supplied in 190kg steel drums or 950kg IBC totes.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEET AND CONTAINER LABELS FOR SAFE USE, PHYSICAL, ENVIRONMENTAL, AND HEALTH HAZARD INFORMATION.

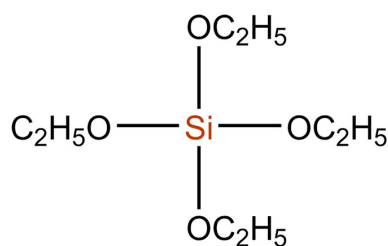
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VERSION: 1 Last updated: 24 April 2024

TECHNICAL DATA SHEET



TYPICAL FEATURES AND APPLICATIONS

SC-5420 TEOS hydrolyzes in the presence of water, producing ethanol and silica gel. This property makes it an essential chemical for coatings, adhesives, and ceramics.

It may be used as an inorganic binder for refractory fillers and pigments, like precision investment castings.

SC-5420 may be used as a second backup casting coating. It cures faster than colloidal silica system.

SC-5420 may be hydrolyzed to form silicon dioxide (silica).

INFORMATION FOR USE

SC-5420 may be used as a binder in zinc-rich (corrosion resistant) coating. It may also be used as a starting material for sol-gel process.

SC-5420 may be used as a crosslinking agent for silicone sealant. It may be used as a drying agent in sealing compositions.

SC-5420 may be used as a chemical intermediate.

SHELF LIFE AND STORAGE

In the unopened original container SC-5420 has a shelf life of one year in a dry and cool place.