

## PROSILANE™ SC-5420HP

TETRAETHYL ORTHOSILICATE [PURITY 99.5%]

### PRODUCT DESCRIPTION

SC-5420HP, Tetraethyl orthosilicate (TEOS) is a high purity (99.5%), 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 SiO<sub>2</sub> content of 28.5%.

### TYPICAL PRODUCT DATA\*

Property	Unit	Typical Value
CAS#	-	78-10-4
Molecular Weight	g/mol	208.33
Formula		C <sub>8</sub> H <sub>20</sub> O <sub>4</sub> Si
Appearance	-	Colorless clear liquid
Boiling Point	°C	168
Flash Point	°C	46
Refractive Index	-	1.384
Density	g/cm <sup>3</sup>	0.934
Purity	%	≥99.5%

\* 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-5420HP 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.

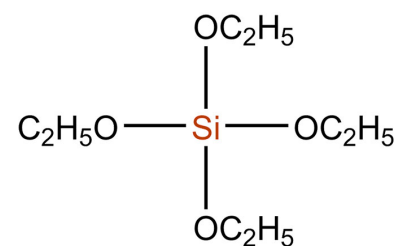
**LIMITATIONS:** Not intended for human injection. This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

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## TECHNICAL DATA SHEET



### TYPICAL FEATURES AND APPLICATIONS

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

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

### INFORMATION FOR USE

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

SC-5420HP may be used as a chemical intermediate.

### SHELF LIFE AND STORAGE

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