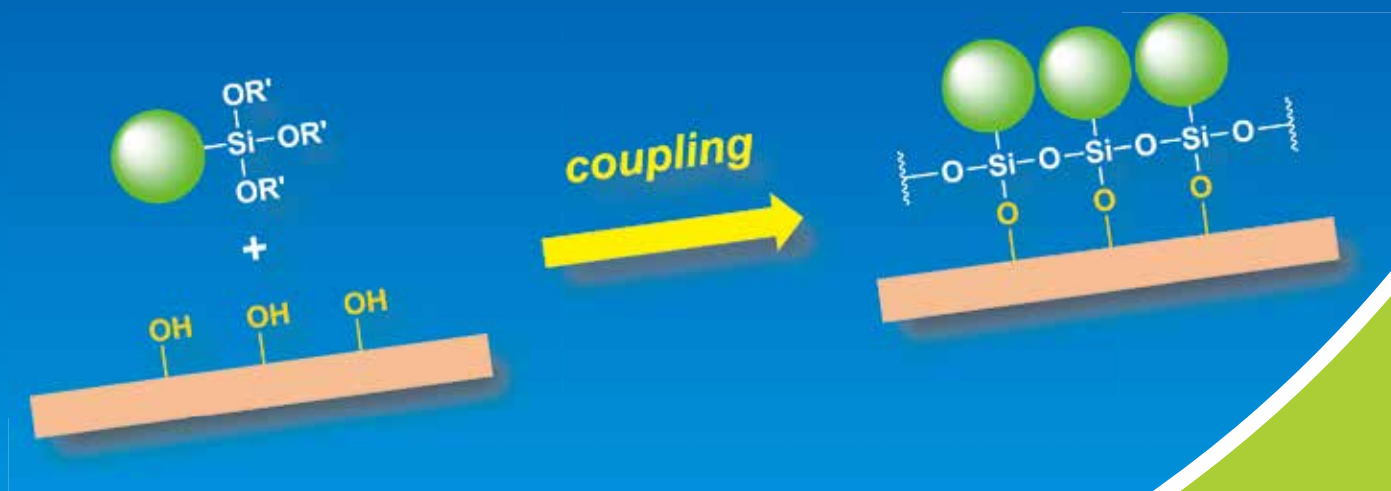


# 硅烷偶联剂

## Silane Coupling Agents



链烯基硅烷

丙烯酰基烷氧基硅烷

环氧丙基烷氧基硅烷

氨烷基硅烷

烷基硅烷

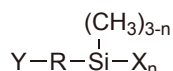
芳基硅烷，芳基烷基硅烷

氟代烷基硅烷，氟代芳基硅烷

其它硅烷

# 硅烷偶联剂

硅烷偶联剂是一类同时含有两种不同化学性质官能团的有机硅化合物。一种官能团可以与有机材料反应，另外一种可以与无机材料反应。其结构通式如下：



其中，Y代表可以与有机材料结合的官能团，比如乙烯基、环氧基、氨基等。X代表可以在水中或潮湿环境中水解的官能团，这些官能团水解成硅醇从而与无机材料结合。典型的X基团包括氯、烷基，以及乙酰氧基等。

硅烷偶联剂能够提高有机和无机材料界面的粘接性，被广泛用于增强玻璃纤维强化塑料的强度及性能。近来，硅烷偶联剂被应用在无机-有机杂化材

料的生产上，比如印刷电路板用的层压板、人造大理石、塑料磁体和二氧化硅固定化生物活性物质。

除了用于提高界面粘接性，硅烷偶联剂的各种用途也正在开发中。比如，利用水解基团的反应性合成可交联聚合物，通过表面处理获取抗静电和抗菌性能等。硅烷偶联剂将在广泛的领域中得到应用。

## References

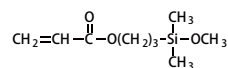
- 1) E. P. Plueddemann, *Silane Coupling Agents*, 2nd ed., Springer US, New York, 1991.
- 2) K. L. Mittal, *Silanes and Other Coupling Agents*, Volume 5, CRC Press, New York, 2009.

## 链烯基硅烷 Host Materials

<b>V0042</b> 25mL 100mL 500mL	<b>V0046</b> 25mL	<b>D2318</b> 25mL	<b>V0044</b> 25mL 100mL 500mL	<b>V0048</b> 25mL 500mL
Vinyltrimethoxysilane [2768-02-7]	Dimethylethoxyvinylsilane [5356-83-2]	Diethoxymethylvinylsilane [5507-44-8]	Triethoxyvinylsilane [78-08-0]	Vinyltris(2-methoxyethoxy)silane [1067-53-4]
<b>A1275</b> 10mL 25mL	<b>A1538</b> 5g 25g	<b>A1504</b> 5mL 25mL	<b>A0785</b> 10mL	<b>B3214</b> 1g 5g
Allylchlorodimethylsilane [4028-23-3]	Allyltrichlorosilane [107-37-9]	Allyltrimethoxysilane [2551-83-9]	Allyltriethoxysilane [2550-04-1]	[Bicyclo[2.2.1]hept-5-en-2-yl]triethoxysilane (mixture of isomers) [18401-43-9]

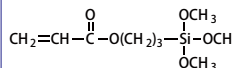
## 丙烯酰基烷氧基硅烷 Acryloyloxyalkyl Silanes

M2525 5g



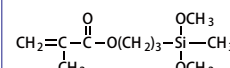
3-(Methoxydimethylsilyl)propyl Acrylate [111918-90-2]

A1597 25g



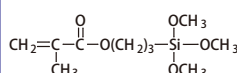
3-(Trimethoxysilyl)propyl Acrylate [4369-14-6]

M1530 25mL



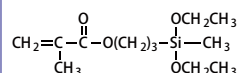
3-[Dimethoxy(methyl)silyl]propyl Methacrylate [14513-34-9]

M0725 25mL 100mL 500mL



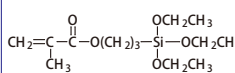
3-(Trimethoxysilyl)propyl Methacrylate [2530-85-0]

D4679 25mL



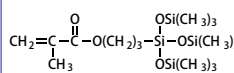
3-[Diethoxy(methyl)silyl]propyl Methacrylate [65100-04-1]

T2676 25g



3-(Triethoxysilyl)propyl Methacrylate [21142-29-0]

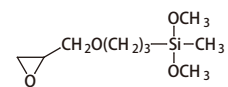
M1324 25mL 100mL



3-[Tris(trimethylsilyloxy)silyl]propyl Methacrylate [17096-07-0]

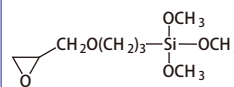
## 环氧丙基烷氧基硅烷 Glycidyoxyalkyl Silanes

G0261 25g 500g



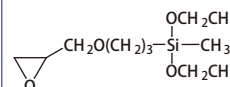
3-Glycidyoxypropyl(dimethoxy)methylsilane [65799-47-5]

G0210 25g 100g 500g



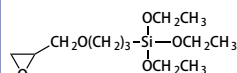
3-Glycidyoxypropyltrimethoxysilane [2530-83-8]

D2632 25mL



Diethoxy(3-glycidyoxypropyl)methylsilane [2897-60-1]

T2675 25g

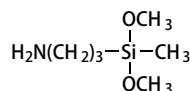


Triethoxy(3-glycidyoxypropyl)silane [2602-34-8]

## 氨基硅烷

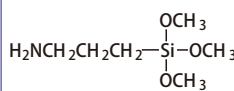
### Aminoalkyl Silanes

A2628 25mL



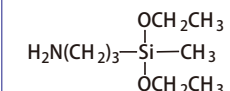
3-Aminopropyltrimethoxymethylsilane [3663-44-3]

T1255 25mL 100mL 500mL



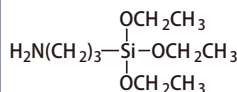
3-Aminopropyltrimethoxysilane [13822-56-5]

D1980 25mL 100mL 500mL



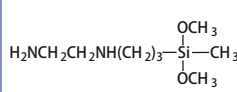
3-Aminopropyl-diethoxymethylsilane [3179-76-8]

A0439 25g 100g 500g



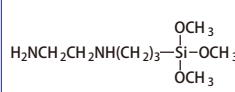
3-Aminopropyltriethoxysilane [919-30-2]

A0876 25mL 500mL



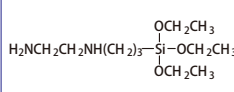
3-(2-Aminoethylamino)propyltrimethoxymethylsilane [3069-29-2]

A0774 25g 100g 500g



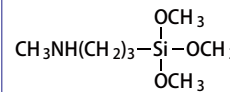
3-(2-Aminoethylamino)propyltrimethoxysilane [1760-24-3]

A1923 25g



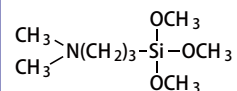
3-(2-Aminoethylamino)propyltriethoxysilane [5089-72-5]

T2868 25g 100g



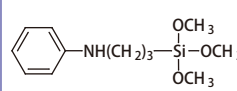
Trimethoxy[3-(methylamino)propyl]silane [3069-25-8]

D4328 5mL 25mL



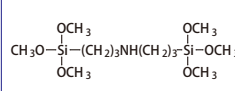
[3-(N,N-Dimethylamino)propyl]trimethoxysilane [2530-86-1]

P1458 25g 250g



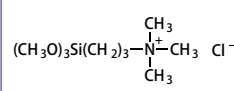
Trimethoxy[3-(phenylamino)propyl]silane [3068-76-6]

B2548 25g 500g



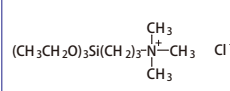
Bis[3-(trimethoxysilyl)propyl]amine [82985-35-1]

T2796 10g 25g



Trimethyl[3-(trimethoxysilyl)propyl]ammonium Chloride (ca. 50% in Methanol) [35141-36-7]

T2246 5g 25g

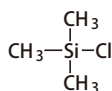


Trimethyl[3-(triethoxysilyl)propyl]ammonium Chloride [84901-27-9]

## 烷基硅烷

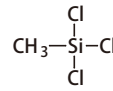
### Alkyl Silanes

C0306 25mL 100mL 500mL



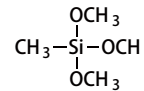
Chlorotrimethylsilane [75-77-4]

M0450 25g 100g 500g



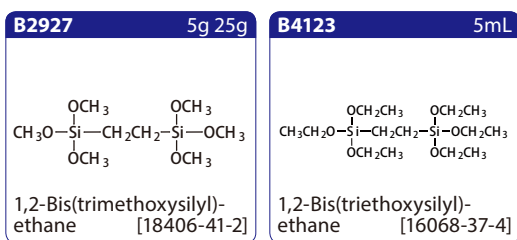
Trichloro(methyl)silane [75-79-6]

M0660 25mL 500mL

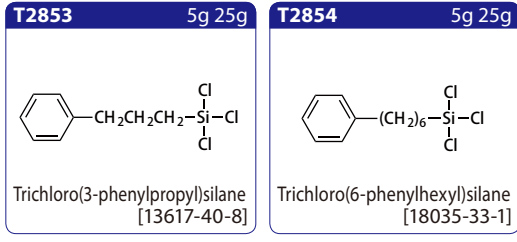
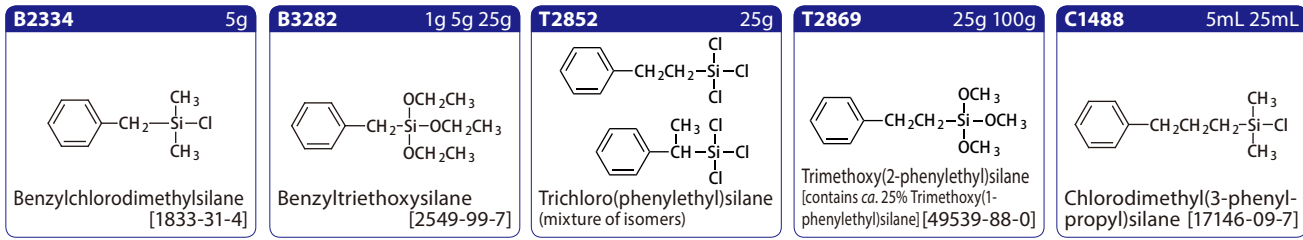
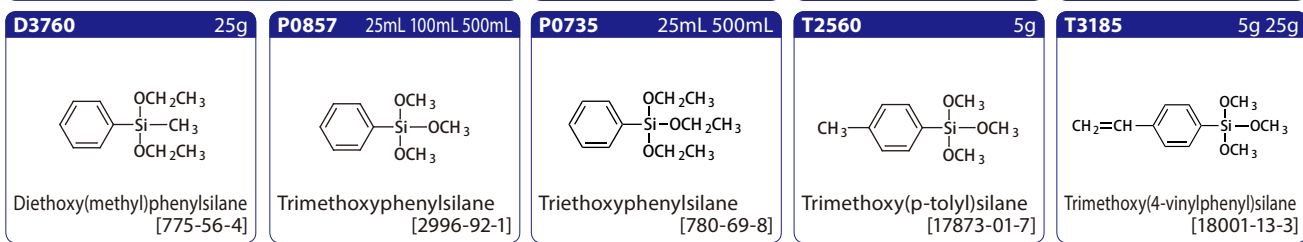
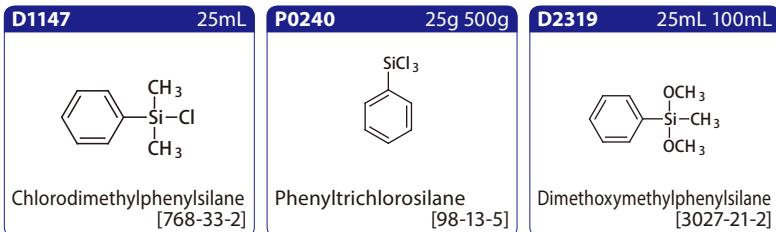


Trimethoxy(methyl)silane [1185-55-3]

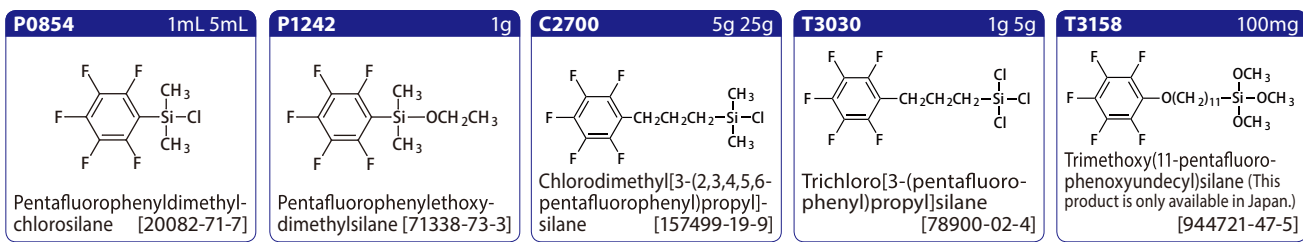
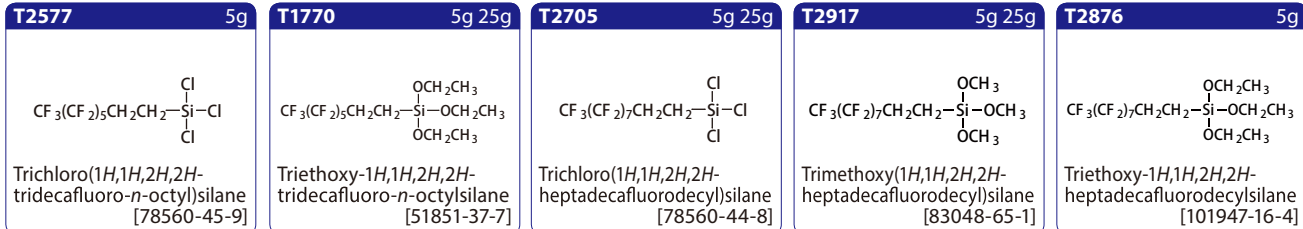
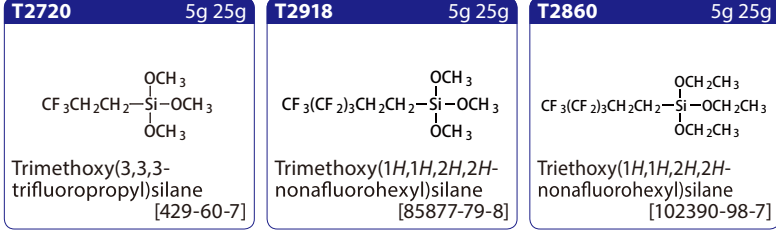
<p><b>M0451</b> 25mL 500mL</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Triethoxymethylsilane [2031-67-6]</p>	<p><b>D0135</b> 5g 25g</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{Cl}-\text{Si}-\text{CH}_2\text{CH}_3 \\   \\ \text{CH}_3 \end{array}$ <p>Dimethylethylchlorosilane [6917-76-6]</p>	<p><b>T0589</b> 5g 25g 100g</p> $\begin{array}{c} \text{CH}_2\text{CH}_3 \\   \\ \text{CH}_3\text{CH}_2-\text{Si}-\text{Cl} \\   \\ \text{CH}_2\text{CH}_3 \end{array}$ <p>Chlorotriethylsilane [994-30-9]</p>	<p><b>E0188</b> 25g 500g</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3\text{CH}_2-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Ethyltrichlorosilane [115-21-9]</p>	<p><b>E0789</b> 25g</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3\text{CH}_2-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Ethyltrimethoxysilane [5314-55-6]</p>
<p><b>E0189</b> 25mL</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3\text{CH}_2-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Triethoxyethylsilane [78-07-9]</p>	<p><b>D1590</b> 5mL 25mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3\text{CH}_2\text{CH}_2-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Chlorodimethylpropylsilane [17477-29-1]</p>	<p><b>P0371</b> 25g</p> $\begin{array}{c} \text{Cl} \\   \\ \text{Cl}-\text{Si}-\text{CH}_2\text{CH}_2\text{CH}_3 \\   \\ \text{Cl} \end{array}$ <p>Trichloro(propyl)silane [141-57-1]</p>	<p><b>T1801</b> 25mL 500mL</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_2-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Trimethoxy(propyl)silane [1067-25-0]</p>	<p><b>T2867</b> 25g 100g</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3\text{CH}_2\text{CH}_2-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Triethoxy(propyl)silane [2550-02-9]</p>
<p><b>D1594</b> 5mL 25mL</p> $\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\   \quad   \\ \text{CH}_3-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Dimethylisopropylchlorosilane [3634-56-8]</p>	<p><b>D2262</b> 1g 5g</p> $\begin{array}{c} \text{CH}_2\text{CH}_3 \\   \\ \text{CH}_3-\text{CH}-\text{Si}-\text{Cl} \\   \quad   \\ \text{CH}_3 \quad \text{CH}_2\text{CH}_3 \end{array}$ <p>Chlorodiethylisopropylsilane [107149-56-4]</p>	<p><b>T1078</b> 5mL 25mL 250mL</p> $\begin{array}{c} \text{CH}(\text{CH}_3)_2 \\   \\ (\text{CH}_3)_2\text{CH}-\text{Si}-\text{Cl} \\   \\ \text{CH}(\text{CH}_3)_2 \end{array}$ <p>Triisopropylsilyl Chloride [13154-24-0]</p>	<p><b>B2010</b> 25mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_3-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Butylchlorodimethylsilane [1000-50-6]</p>	<p><b>B0393</b> 25g</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_3-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Butyltrichlorosilane [7521-80-4]</p>
<p><b>I0452</b> 25g 500g</p> $\begin{array}{c} \text{CH}_3 \quad \text{Cl} \\   \quad   \\ \text{CH}_3-\text{CH}-\text{CH}_2-\text{Si}-\text{Cl} \\   \quad   \\ \quad \quad \text{Cl} \end{array}$ <p>Isobutyltrichlorosilane [18169-57-8]</p>	<p><b>B0995</b> 5g 25g 100g</p> $\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \\   \quad   \\ \text{CH}_3-\text{C}-\text{Si}-\text{Cl} \\   \quad   \\ \text{CH}_3 \quad \text{CH}_3 \end{array}$ <p><i>tert</i>-Butyldimethylchlorosilane [18162-48-6]</p>	<p><b>H0547</b> 25mL</p> $\begin{array}{c} \text{Cl} \\   \\ \text{Cl}-\text{Si}-(\text{CH}_2)_5\text{CH}_3 \\   \\ \text{Cl} \end{array}$ <p>Trichlorohexylsilane [928-65-4]</p>	<p><b>H0879</b> 25mL 500mL</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_5-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Hexyltrimethoxysilane [3069-19-0]</p>	<p><b>H1158</b> 25mL 500mL</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_5-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Hexyltriethoxysilane [18166-37-5]</p>
<p><b>T2116</b> 5g 25g</p> $\begin{array}{c} \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \\   \quad   \quad   \\ \text{CH}_3-\text{CH}-\text{C}-\text{Si}-\text{Cl} \\   \quad   \quad   \\ \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \end{array}$ <p>Chloro(dimethyl)-<i>thexyl</i>silane [67373-56-2]</p>	<p><b>T2517</b> 5g 25g</p> $\begin{array}{c} \text{Cl} \quad \text{CH}_3 \\   \quad   \\ \text{Cl}-\text{Si}-\text{C}-\text{CH}-\text{CH}_3 \\   \quad   \quad   \\ \text{Cl} \quad \text{CH}_3 \quad \text{CH}_3 \end{array}$ <p><i>Thexyl</i>trichlorosilane [18151-53-6]</p>	<p><b>C0892</b> 5g 25g</p> $\begin{array}{c} \text{SiCl}_3 \\   \\ \text{C}_6\text{H}_{11} \end{array}$ <p>Cyclohexyltrichlorosilane [98-12-4]</p>	<p><b>C2280</b> 5g 25g</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{C}_6\text{H}_{10}-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Cyclohexyltrimethoxysilane [17865-54-2]</p>	<p><b>D1827</b> 25mL 100mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_7-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Dimethyl-<i>n</i>-octylchlorosilane [18162-84-0]</p>
<p><b>O0168</b> 25g 250g</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_7-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p><i>n</i>-Octyltrichlorosilane [5283-66-9]</p>	<p><b>T2875</b> 25mL</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_7-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Trimethoxy-<i>n</i>-octylsilane [3069-40-7]</p>	<p><b>O0171</b> 25mL 500mL</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_7-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Triethoxy-<i>n</i>-octylsilane [2943-75-1]</p>	<p><b>C1468</b> 25mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_9-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Chloro(decyl)dimethylsilane [38051-57-9]</p>	<p><b>D1486</b> 25mL</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_9-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Decyltrichlorosilane [13829-21-5]</p>
<p><b>C1469</b> 25mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{11}-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Chloro(dodecyl)dimethylsilane [66604-31-7]</p>	<p><b>D1509</b> 25mL</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_{11}-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Dodecyltrichlorosilane [4484-72-4]</p>	<p><b>D3383</b> 25g 250g</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{11}-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Dodecyltrimethoxysilane [3069-21-4]</p>	<p><b>D1510</b> 10mL</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{11}-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Dodecyltriethoxysilane [18536-91-9]</p>	<p><b>T0924</b> 10mL</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_{13}-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Trichlorotetradecylsilane [18402-22-7]</p>
<p><b>H1376</b> 25g</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{15}-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Hexadecyltrimethoxysilane [16415-12-6]</p>	<p><b>D1560</b> 25mL</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{17}-\text{Si}-\text{Cl} \\   \\ \text{CH}_3 \end{array}$ <p>Dimethyloctadecylchlorosilane [18643-08-8]</p>	<p><b>O0079</b> 25g</p> $\begin{array}{c} \text{Cl} \\   \\ \text{CH}_3(\text{CH}_2)_{17}-\text{Si}-\text{Cl} \\   \\ \text{Cl} \end{array}$ <p>Trichlorooctadecylsilane [112-04-9]</p>	<p><b>O0256</b> 25mL</p> $\begin{array}{c} \text{OCH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{17}-\text{Si}-\text{OCH}_3 \\   \\ \text{OCH}_3 \end{array}$ <p>Octadecyltrimethoxysilane [3069-42-9]</p>	<p><b>O0165</b> 25g</p> $\begin{array}{c} \text{OCH}_2\text{CH}_3 \\   \\ \text{CH}_3(\text{CH}_2)_{17}-\text{Si}-\text{OCH}_2\text{CH}_3 \\   \\ \text{OCH}_2\text{CH}_3 \end{array}$ <p>Octadecyltriethoxysilane [7399-00-0]</p>



**芳基硅烷  
芳基烷基硅烷  
Aryl Silanes  
Arylalkyl Silanes**



**芳基硅烷  
芳基烷基硅烷  
Fluoroalkyl Silanes  
Fluoroaryl Silanes**



## 其它硅烷 Other Silanes

		<b>C0605</b> 25g 250g  Chloro(chloromethyl)-dimethylsilane [1719-57-9]	<b>C3073</b> 5g 25g  (Chloromethyl)trimethoxysilane [5926-26-1]	<b>C1402</b> 10g  (Chloromethyl)triethoxysilane [15267-95-5]
<b>C0844</b> 25g  3-Chloropropyltrichlorosilane [2550-06-3]	<b>C1168</b> 5g 25g  3-Chloropropyltrimethoxysilane [18171-19-2]	<b>C0840</b> 25mL 500mL  3-Chloropropyltrimethoxydimethylsilane [2530-87-2]	<b>T1253</b> 25mL 500mL  3-Chloropropyltriethoxysilane [5089-70-3]	<b>B0847</b> 25g  (Bromomethyl)chlorodimethylsilane [16532-02-8]
<b>C1207</b> 5mL 25mL  (3-Cyanopropyl)dimethylchlorosilane [18156-15-5]	<b>C1259</b> 25mL 250mL  2-Cyanoethyltriethoxysilane [919-31-3]	<b>M1323</b> 25mL  3-Mercaptopropyl(dimethoxy)methylsilane [31001-77-1]	<b>M0928</b> 25mL 100mL 500mL  (3-Mercaptopropyl)trimethoxysilane [4420-74-0]	<b>M1505</b> 25g 100g 500g  (3-Mercaptopropyl)triethoxysilane [14814-09-6]
<b>I0556</b> 25g 100g  (3-Isocyanatopropyl)triethoxysilane [24801-88-5]	<b>T1915</b> 25g 250g  1-[3-(Trimethoxysilyl)propyl]urea [23843-64-3]	<b>U0048</b> 25mL 500mL  1-[3-(Triethoxysilyl)propyl]urea (40-52% in Methanol) [23779-32-0]	<b>A2783</b> 100mg  (11-Azidoundecyl)trimethoxysilane [334521-23-2]	<b>P2258</b> 1g 5g  2-Propynyl [3-(Triethoxysilyl)propyl]carbamate [870987-68-1]
<b>E0327</b> 25mL 500mL  2-(3,4-Epoxy)cyclohexylethyltrimethoxysilane [3388-04-3]	<b>V0050</b> 25mL  N-[2-(N-Vinylbenzylamino)ethyl]-3-aminopropyltrimethoxysilane Hydrochloride (30-40% in Methanol) [34937-00-3]			



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