



兰亚化工  
**LANYA CHEMICAL**

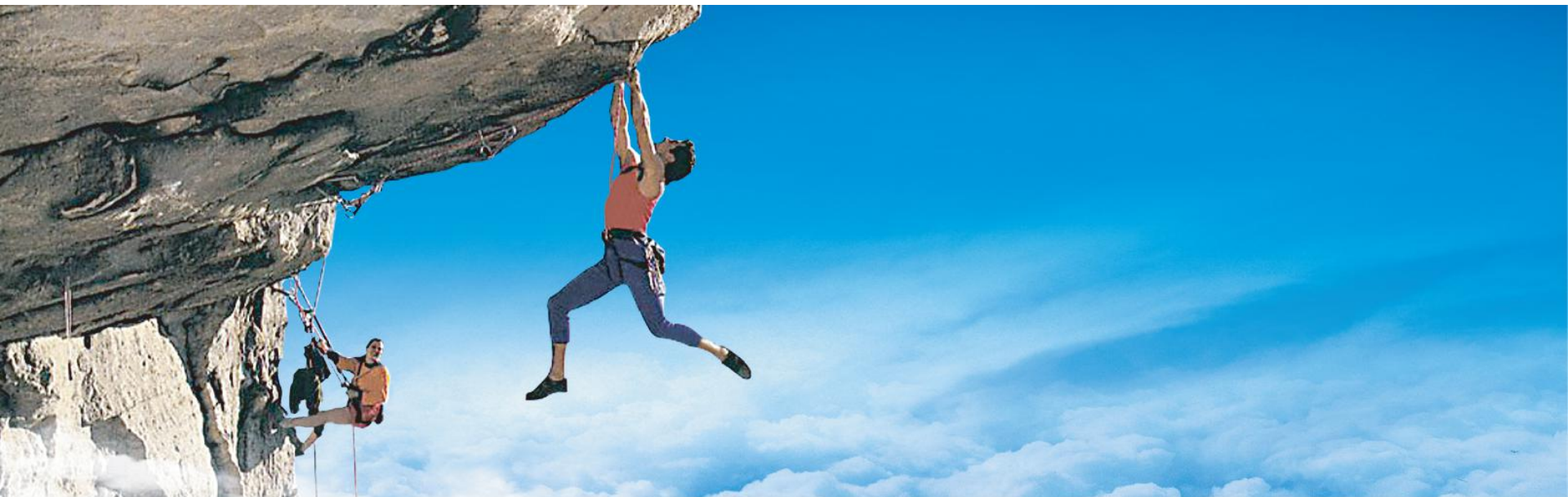
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**LANYA CHEMICAL EUROPE GMBH**  
**NANJING LANYA CHEMICAL CO., LTD.**

# About us



共创成功与未来  
To create success and the future



Our company, Nanjing Lanya Chemical Co., Ltd., is established in 2007. As ISO9001:2008 certified company, our company is engaged in production, R&D and sales of organic silanes. In China, our quality is in the leading position in the same industry. Now company's own brand product: "YAC-SIL" series organic silanes are exporting to India, Russia, Germany, Japan, Taiwan and other countries or areas, product quality and customer service are good reputed.



## 企业简介

### Company introduction

Taking the advantage of the low raw material cost and high efficient management, we can bring customer the low price and high quality products, together with the comprehensive technical service, to support our customer to produce the products with high quality and competitive price.

# Company Photos



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## The workshop

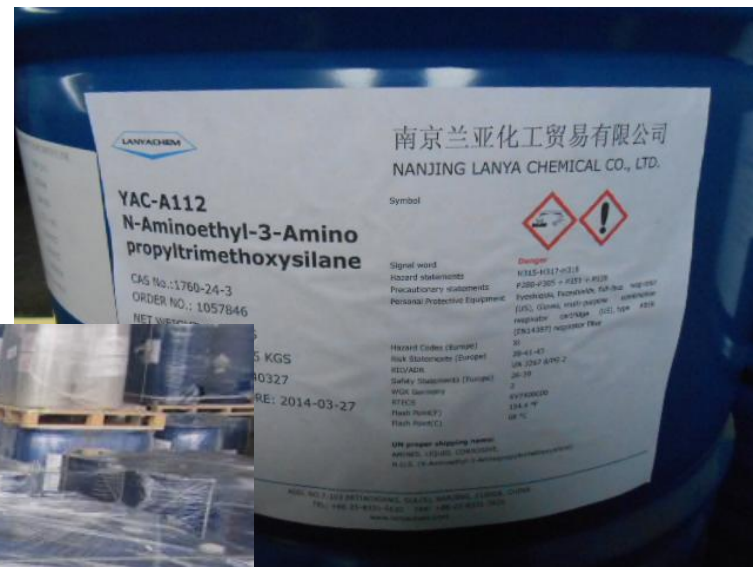


# Company Photos



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## The products



## Products

in Warehouse

# Company Photos



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Products & Container

# Company Photos



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## The QC department



# Brief Introduction



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- Established in Aug.31, 2007
- ISO9001:2015 Certified Company
- Engaged in production, R&D and sales of organic silane coupling agent. In China, our quality of the organic silane coupling agent is in the leading position in the same industry.
- Now company's own brand product:"YA-SIL" series organic silanes are exporting to Spain, Germany, Japan, Taiwan, Korea and other countries or areas.
- In 2016, establish Indian branch office and warehouse. In 2019, establish Europe branch office and warehouse.

# Production Base



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- The production base is located in Xiantao City, Hubei Province, certified by ISO9001 and ISO14001.
- The factory covers an area of 100 acres, and workshop over 12,000 square meters. All our workshop are equipped with advanced production technique and complete manufacturing equipments.
- Mainly specialized in the production of new materials in the field of organosilicon crosslinking agent, coupling agent and catalyst of the high-tech enterprises.
- There are silane continuous production lines with an annual output of over 7,000Mt.





## **PRODUCTION TEAM**

Lanya Chemical does not only have advanced technology group and experienced production management, but also can guarantee the products are released after strict quality control before arriving at the customer. Now Lanya Chemical has skilled production staff and experienced on-site management, to ensure the products supplied to our customer are on the top grade.



## **R&D TEAM**

In order to guarantee the stability of the product quality and continuous developing new products conforming to the organic silane industry trend, Lanya Chemical also has a strong R&D team. R&D team continuously follow up the production process and product quality, continuously give their suggestions on the improvement, continuously collect the organic silane market information and engaged in developing new products, in order to create more value for the customer.

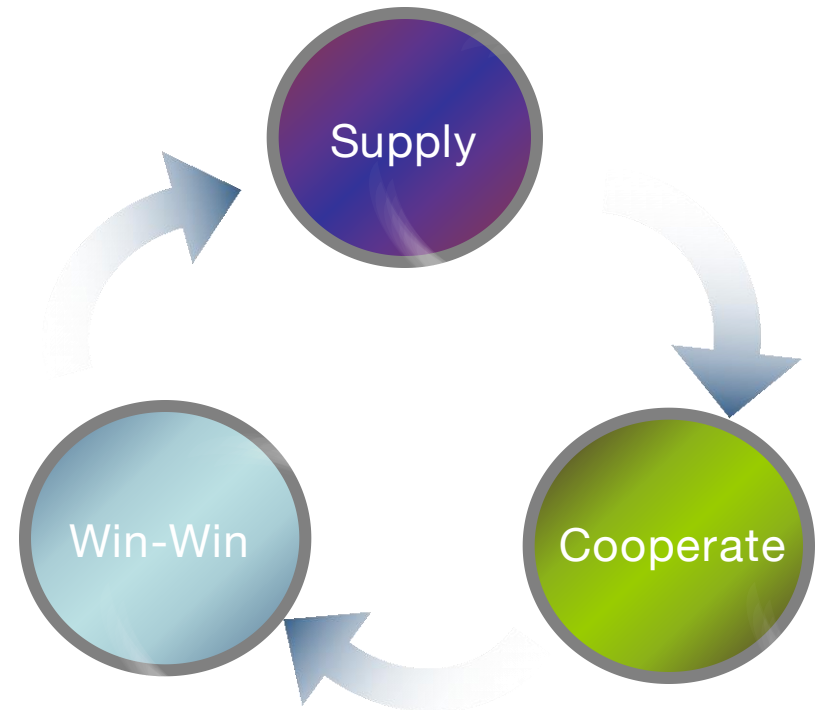


## **APPLICATION TEAM**

Lanya Chemical's application team communicate with our customers deeply, understand the currently exist problem or demand of the customer, so that they can give perfect technology solutions. Cooperate with the sales team to investigate the customer's requirement, optimize the technology process of the usage, and expand the application field of the product, in order to create more added values for the customer.

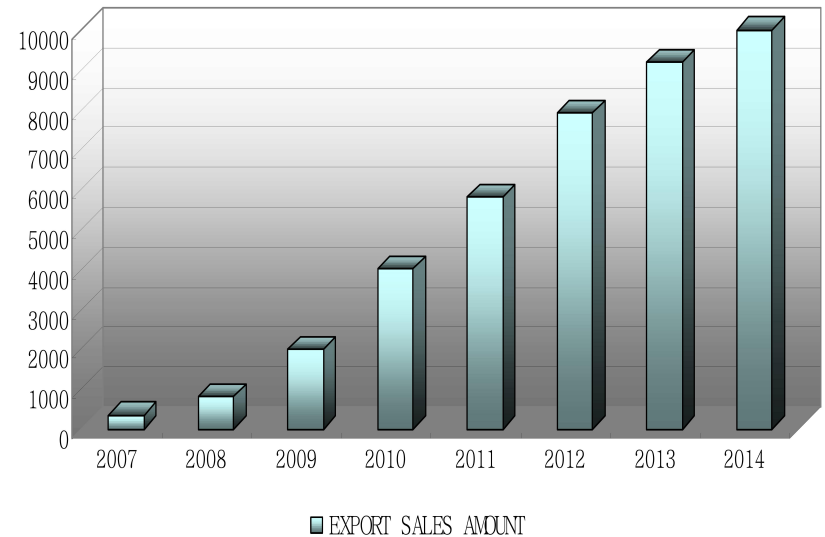
## Aim a Win-Win Cooperation

Supply	Supply Silane
Cooperate	Help customer to solve the production problem and lower down the cost
Win-Win	Give more professional suggestion, establish a win-win relationship

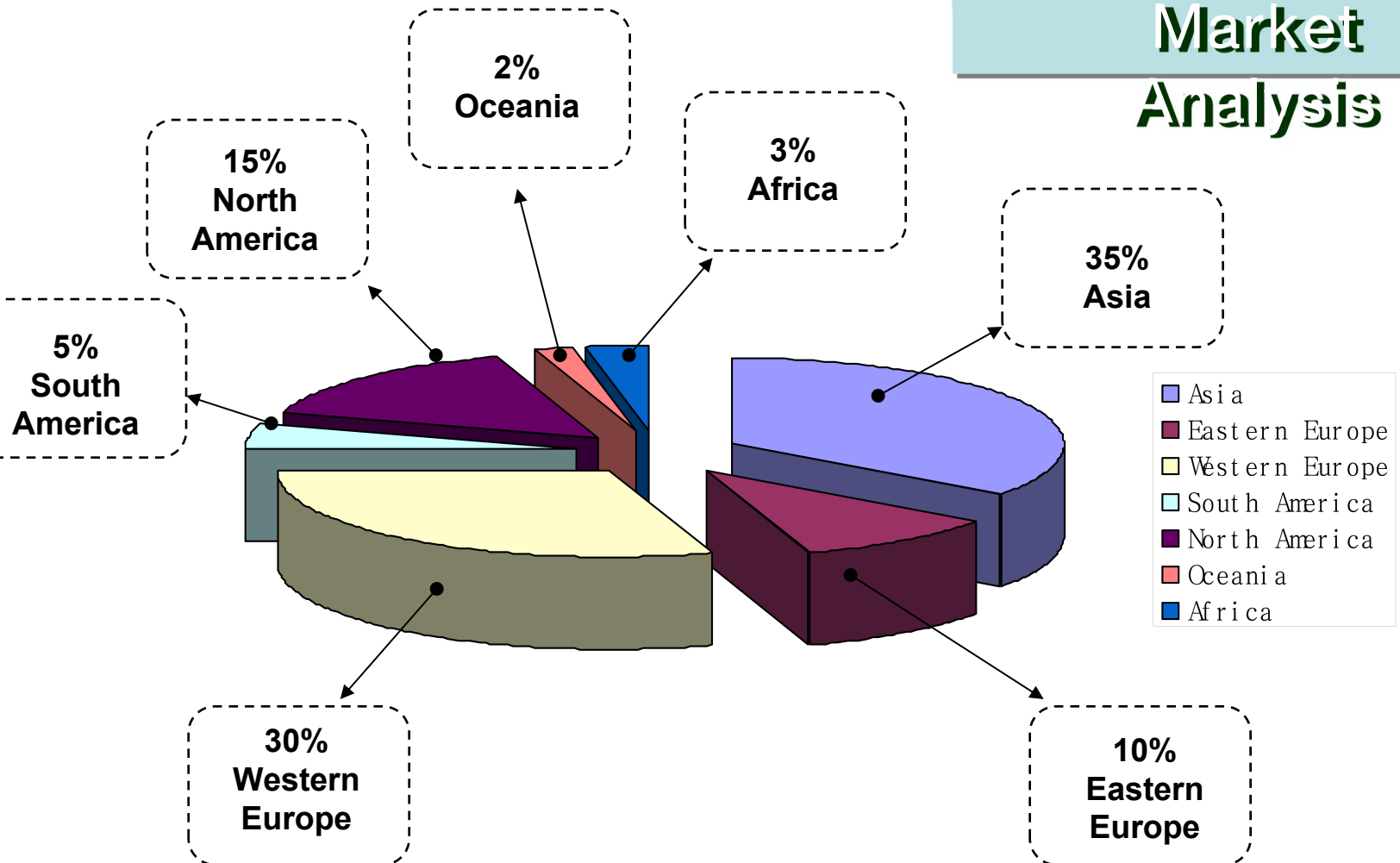


## Company Growth

Since the establishment, company grows very fast, sales volume enlarged from the first USD300,000.00 annually to current more than USD10,000,000.00 annually.



## Market Analysis



# Product Introduction



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## Product Catalog

Brand	Product Name	Content	CAS No.	CAS Brand	Wacker	Dow-Corning	Shin-Etsu	Momentive
<b>Pharmaceutical Silane Series</b>								
YAC-BSA	N,O-BIS(TRIMETHYLSILYL)ACETAMIDE	98%	10416-59-8					
YAC-BSTFA	BIS(TRIMETHYLSILYL)TRIFLUOROACETAMIDE	98%	25561-30-2					
YAC-TES	TRIETHYLSILANE	99%	617-86-7					
YAC-TECS	TRIETHYLCHLOROSILANE	99%	994-30-9					
YAC-TBDMSC	TERT-BUTYLDIMETHYLCHLOROSILANE	99%	18162-48-6					
YAC-TBDPSC	TERT-BUTYLDIPHENYLCHLOROSILANE	98%	58479-61-1					
<b>Industrial Silane Series</b>								
<b>Amine Silane Series (A)</b>								
YAC-A110	3-AMINOPROPYLTRIETHOXSILANE	95%/97%/98%	919-30-2	KH-550	GF 93	Z-6011	KBE-903	A-1100
YAC-A111	3-AMINOPROPYLTRIMETHOXSILANE	95%/97%	13822-56-5	KH-540	GENIOSIL GF 96	Z-6610	KBM-903	A-1110
YAC-A112	N-AMINOETHYL-3-AMINOPROPYLTRIMETHOXSILANE	95%/97%	1760-24-3	KH-792	GENIOSIL GF 9	Z-6020	KBM-603	A-1120
YAC-A112	N-AMINOETHYL-3-AMINOPROPYLTRIMETHOXSILANE	98%		KH-792	GF 91	Z-6094		
YAC-A160	3-UREIDOPROPYLTRIETHOXSILANE	50%	23799-32-0			Z-6676	KBE-585	A-1160
YAC-A161	3-UREIDOPROPYLTRIMETHOXSILANE	95%	23843-64-3					A-11542
YAC-A210	3-AMINOPROPYLMETHYLDIETHOXSILANE	95%	3179-76-8	KH-902		Z-6015	KBE-902	A-2100
YAC-A212	N-AMINOETHYL-3-AMINOPROPYLMETHYLDIMETHOXSILANE	95%	3069-29-2	KH-602	GENIOSIL GF 95	Z-6436	KBM-602	A-2120
<b>Chloropropyl Silane Series (C)</b>								
YAC-C312	3-CHLOROPROPYLMETHYLDIMETHOXSILANE	98%	18171-19-2					
YAC-C313	3-CHLOROPROPYLTRIMETHOXSILANE	98%/99%	2530-87-2			Z-6376	KBE-703	
YAC-C322	3-CHLOROPROPYLMETHYLDIETHOXSILANE	95%	13501-76-3					
YAC-C323	3-CHLOROPROPYLTRIETHOXSILANE	98%	5089-70-3			Z-6076	KBM-703	A-143

# Product Introduction



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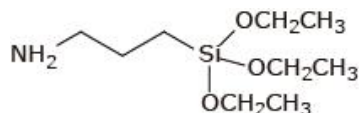
Alkyl Silane Series (N)								
YAC-N113	METHYLTRIMETHOXSILANE	99%	1185-55-3			Z-6070	KBM-13	A-1630A
YAC-N123	METHYLTRIETHOXSILANE	99%	2031-67-6			Z-6370	KBE-13	A-162
YAC-N813	N-OCTYLTRIMETHOXSILANE	98%	3069-40-7			Z-6672		
YAC-N823	N-OCTYLTRIETHOXSILANE	98%	2943-75-1			Z-6341		A-137/Y-9187
YAC-N1213	N-DODECYLTRIMETHOXSILANE	95%	3069-21-4				KBM-3103C	
Epoxy Silane Series (O)								
YAC-O186	2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIMETHOXSILANE	98%	3388-04-3			E-6350	KBM-303	
YAC-O1861	2-(3,4-EPOXYCYCLOHEXYL)ETHYLTRIETHOXSILANE	98%	10217-34-2				KBM-303	
YAC-O187	3-GLYCIDOXYPROPYLTRIMETHOXSILANE	97%/98%/99%	2530-83-8	KH-560	GENIOSIL GF 80	Z-6040	KBM-403	A-187
YAC-O1871	3-GLYCIDOXYPROPYLTRIETHOXSILANE	97%	2602-34-8		GENIOSIL GF 82	Z-6041	KBE-403	A-1871/Y-15589
YAC-O1872	3-GLYCIDOXYPROPYLMETHYLDIETHOXSILANE	97%	2897-60-1			Z-6042	KBE-402	Wetlink 78/Y-15078/Y-11012
YAC-O1873	3-GLYCIDOXYPROPYLMETHYLDIMETHOXSILANE	97%	65799-47-5		GENIOSIL GF 80	Z-6044	KBE-402	
Methacryloxy Silane Series (O)								
YAC-O174	3-METHACRYLOXYPROPYLTRIMETHOXSILANE	97%/98%/99%	2530-85-0	KH-570	GENIOSIL GF 31	Z-6030	KBM-503	A-174
YAC-O1741	3-METHACRYLOXYPROPYLMETHYLDIMETHOXSILANE	95%/97%	14513-34-9	KH-571		Z 6033	KBM-502	
YAC-O1742	3-METHACRYLOXYPROPYLTRIETHOXSILANE	97%	21142-29-0			Z-6036	KBE-503	Y-11878/Y-9936
YAC-O1743	3-METHACRYLOXYPROPYLMETHYLDIETHOXSILANE	95%/97%	65100-04-1				KBE-502	
Phenyl Silane Series (P)								
YAC-P13	PHENYLTRIMETHOXSILANE	98%	2996-92-1			Z-6124	KBM-103	A-153
YAC-P212	DIPHENYLDIMETHOXSILANE	96%	6843-66-9			AY-43-047		
Mercapto Silane Series (S)								
YAC-S312	3-MERCAPTOPROPYLMETHYLDIMETHOXSILANE	98%	31001-77-1					
YAC-S313	3-MERCAPTOPROPYLTRIMETHOXSILANE	95%/97%/98%	4420-74-0	KH-590	GENIOSIL GF 70	Z-6062	KBM-803	A-189
YAC-S319	BIS-(3-(TRIETHOXSILYL)PROPYL)TETRASULFIDE	95%	40372-72-3	KH-846		Z-6940	KBE-846	A-1289
YAC-S323	3-MERCAPTOPROPYLTRIETHOXSILANE	95%/97%/98%	14814-09-6	KH-580				A-1891
Trialkyl Silane Series (T)								
YAC-T13	TRIMETHOXSILANE	98%/99%	2487-90-3					
YAC-T23	TRIETHOXSILANE	98%/99%	998-30-1					
Vinyl Silane Series (V)								
YAC-V151	VINYLTRIETHOXSILANE	98%/99%	78-08-0		GENIOSIL GF 56	Z-6518	KBE-1003	A-151
YAC-V171	VINYLTRIMETHOXSILANE	98%	2768-02-7		GENIOSIL XL 10	Z-6300	KBM-1003	A-171
Other Products								
YAC-TEOS 40	TETRAETHOXY ORTHO SILANE - 40		11099-06-2		Silicate TES 40WN			TEOS-40 Silane

# Main Products



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## 3-Aminopropyltriethoxy Silane



Brand Name YAC-A110

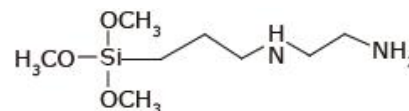
Physical properties:

CAS No.	919-30-2
EINECS No.	213-048-4
Molecular Weight	221.37
Density [25 °C]	0.9510±0.0050g/cm <sup>3</sup>
Refractive Index [25 °C]	1.4225±0.0050

Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤10APHA

## N-Aminoethyl-3-Aminopropyl trimethoxysilane



Brand Name YAC-A112

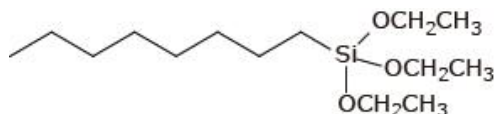
Physical properties:

CAS No.	1760-24-3
EINECS No.	217-164-6
Molecular Weight	222.36
Density [25 °C]	1.0100±0.0050g/cm <sup>3</sup>
Refractive Index [25 °C]	1.4420±0.0050

Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤10APHA

## *n*-Octyltriethoxy Silane



Brand Name YAC-N823

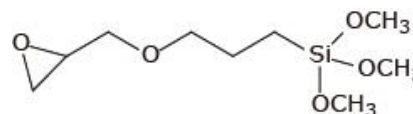
Physical properties:

CAS No.	2943-75-1
EINECS No.	220-941-2
Molecular Weight	276.48
Density [25 °C]	0.8790±0.0050g/cm <sup>3</sup>
Refractive Index [25 °C]	1.4170±0.0050

Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤10APHA

## 3-Glycidoxypropyltrimethoxy Silane



Brand Name YAC-O187

Physical properties:

CAS No.	2530-83-8
EINECS No.	219-784-2
Molecular Weight	236.34
Density [25 °C]	1.0070±0.0050g/cm <sup>3</sup>
Refractive Index [25 °C]	1.4280±0.0050

Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤10APHA

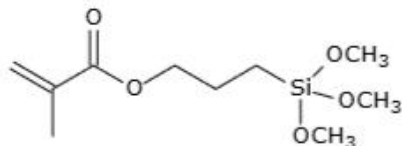


# Main Products



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## 3-Methacryloxypropyltrimethoxy Silane



Brand Name YAC-0174

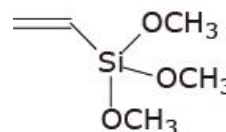
### Physical properties:

CAS No.	2530-85-0
EINECS No.	219-785-8
Molecular Weight	248.35
Density [25°C]	1.0445±0.0055g/cm <sup>3</sup>
Refractive Index [25°C]	1.4290±0.0010

### Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤25APHA

## Vinyl Trimethoxy Silane



Brand Name YAC-V171

### Physical properties:

CAS No.	2768-02-7
EINECS No.	220-449-8
Molecular Weight	148.23
Density [25°C]	0.9718±0.0050g/cm <sup>3</sup>
Refractive Index [25°C]	1.3925±0.0050

### Specification:

Color and Appearance	Colorless clear liquid
Purity	≥98.0%
Color	≤10APHA

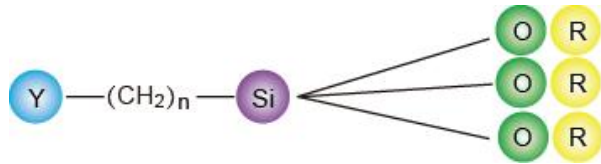
# Silane Coupling Agent



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## Molecular Formula

Typical structure is:  $Y(CH_2)_nSi(OR)_3$

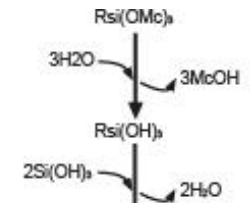


## Why Choosing Silane

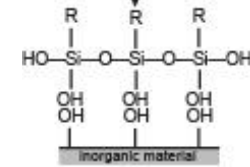
- Better wetting properties of resin
- Wet resistance and water removal agent
- Waterproof to constructions
- Better dispersion of mineral fillings
- More clear and transparent of the modified plastic

## Mechanism of action

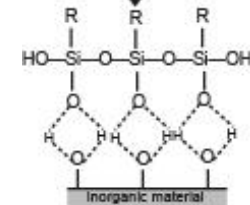
Hydrolysis



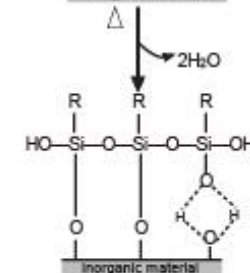
Condensation



Hydrogen bonding



Bonding formation



# Silane Coupling Agent



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## How to Choose Silane

	Fuctional groups									
	Polymer		Amino	Epoxy	Sulfenyl	Mercapto	Acyloxy	Vinyl	Carbamido	Isocyanate group
Thermosetting resin	Furan resin		⊙	○						○
	Unsaturated resin			○			⊙	○		
	Diallyl phthalate			○			○	○		
	Polyimide		○	○					○	○
	Polyurethane		○	○		○			○	⊙
	Epoxy resin		⊙	⊙						○
Thermoplastic resin	Phenolic resin		⊙	○					○	○
	ABS		○	○		○	⊙			○
	PET / PBT		○	○						⊙
	Polyurethane		○	○		○			○	⊙
	Nylon		⊙	○					⊙	○
	Polycarbonate		○	○			○			○
	PVC		⊙	○		○				
	Acrylic acid		⊙	○		○	○			
	Polystyrene		⊙	○		○	⊙			
	PP		○	○		○				
Emulsion	PE		○	○		○				
	Acrylic Emulsion			□			⊙	⊙		
	Latex						⊙	⊙		
Elastomer /Rubber	Water-based polyurethane		□	□						
	Polyurethane rubber		○	○	○	⊙			○	
	Thiokol rubber		○	○	○	⊙				
	Butyl rubber		○	○						
	Neoprene		○		○	⊙				
	Chloropropionyl (ether) rubber		○		○					
	NBR		○	○		⊙				
	Styrene-butadiene rubber			○	○	⊙				
	EPDM rubber		○		○	○	⊙	○		
	Polyisoprene rubber					○				
Polybutadiene rubber					○					

⊙ Preferred   ○ Applicable   □ Only applies to some special silane

## Application

### > Adhesives & Silicone Sealant

Silane can improve the adhesion of most silicone sealant and adhesives on the metal, glass, stone and other inorganic bases.



### > Plastic, Polymer & Rubber

Silane can be used to bond the inorganic filler and pigment onto the polymers, optimize the production of PP, crosslink of PE and the production of thermoplastic vulcanizates (TPVS). Besides, it can also be used to produce Silica reinforced rubber, which can be used in manufacturing "green" tires.



### > Glass Fiber & Composite Materials

Silane can bring significant difference on glass fiber reinforced polymers. Glass fiber is very hydrophilic, can bring the water onto the interface. Without silane treated on the surface, the adhesion between the glass fiber and the resin will become weaker and weaker, until failed finally.



# Silane Coupling Agent



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## > Treatment of Minerals & Fillers

Mineral filler becomes a more and more important additive and modifier in organic polymers. Usually, the hydroxyl on the surface of minerals is hydrophilic, incompatible with organic polymers. But after surface treated with silane, its compatibility and dispersion in the organic polymers are greatly improved.



## > Painting, Ink & Coating

Silane can form a covalent bond between the inorganic and organic compound. The stability of Siloxane group (Si-O-Si) make this technology become a key part in the high performance painting and coating.



## > Water Repellents & Building Protection

Using silane to prepare the permeability repellent, it can be used in porous substrates, hole blocking sealant and assembled agent, and extend the shelf life of masonry, stone and concrete.



# Oversea Exhibition



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# Our India Company



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INDIA

Lanya Chemical (India) Pvt. Ltd.

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# Our Europe Company



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Europe

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**THANKS!**



"The Chemistry We Serve"

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