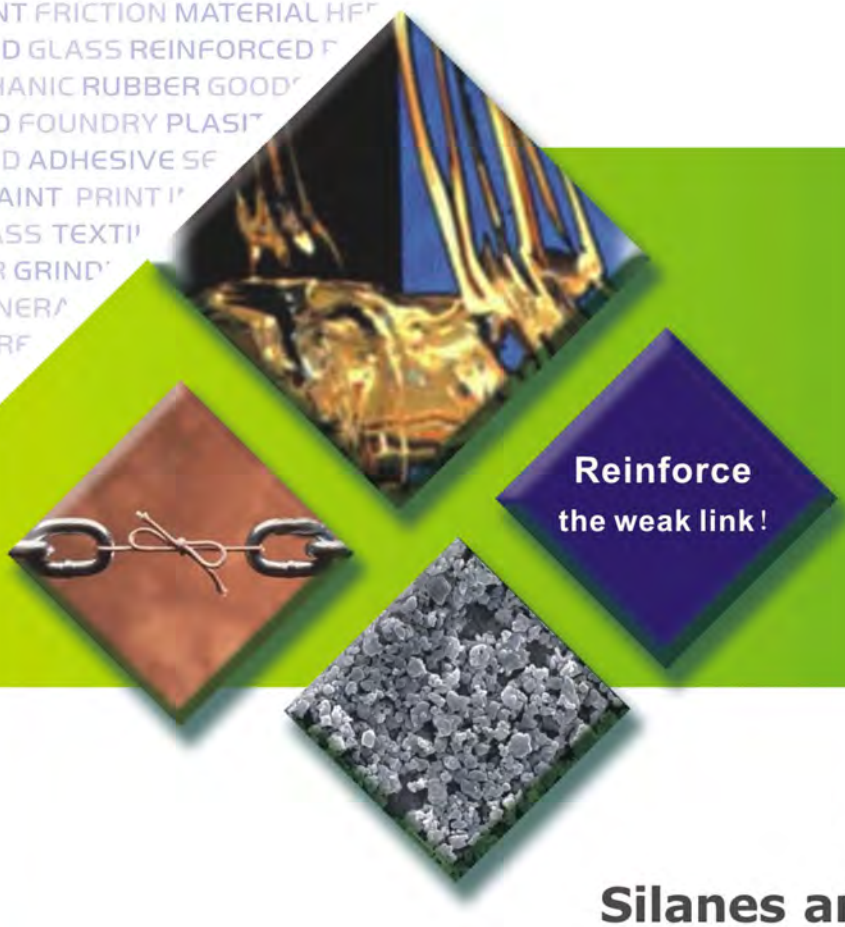

The Vital and Versatile Additives for Macromolecular Material

Catalogue

Organofunctional Silanes and Organometallic Titanates, (Zirconates & Aluminates)

CAPATUE CHEMICAL

Accelerating customers' success!

Company Profile

Nanjing Capatue Chemical Co., Ltd is a SGS-UKAS ISO 9001 certified specialty chemical company supplying organo-functional silanes, titanates and relative chemical goods. With more than 20 years of business and technology experience in silane and titanate chemical industry, Capatue has become a leading supplier of silane crosslinking material (SXL) for wire/cable and PEX-B pipe including dry silane, formulated silane (so-called silane cocktail), and porous polyolefin carrier. We are also a major supplier of organo-functional silane (silane coupling agent) and titanate (zirconate, aluminate) coupling agent (organometallic coupling agent) in China.

Capatue is your trustable supplier and expertizer of coupling agents.

Product Overview

Coupling agents are bifunctional molecules able to bond chemically with both the substrate or filler surface and the polymer matrix or adhesive resin, which forms a 'molecular bridge' between the two. The strong interfacial bond can provide a dual function of improving processing and improving adhesion. Capatue offers you a basket solution of your coupling agents demand. Our product portfolio fortunately includes both organo-functional silane (silane coupling agent) and titanate (zirconate, aluminate) coupling agent (organometallic titanate, zirconate, and aluminate). Organo-functional silane and organometallic titanate are versatile additives, some typical functions and usages are as following for your information:

Coupling agent	Cross-linking agent	Adhesion promoter
Surface modifier	Dispersion aid	Wetting agent
Water repellent	Water scavenger	Corrosion inhibitor
Endcapper	Co-monomer	Silicate stabilizer
Thixotropic agent	Catalyst	Crosslinking catalyst

Product Application

The benefits which organofunctional silanes and organometallic titanates (zirconates and aluminates) may impart to these end-use applications are highlighted as below:

Applications	Typical Benefits
Adhesives, Coatings and Inks	Improved dry and wet adhesions to many substrates without the need of primer, moisture-reinitiated crosslinking of resins, improved chemical resistance, weatherability and durability, better pigment dispersion and scrub resistance.
Fiberglass Reinforced Composites	Coupling of resins with fiberglass for improved resiliency of batts, better wet strength and electrical properties of FRP composites, and improved fiber strand integrity, protection and handle.
Filler Treatment	Improved coupling of resins with mineral fillers, better filler wetting, dispersion and processing ease in thermosets, thermoplastics and elastomers.
Polymer Modification	Moisture-cure crosslinking for improved environment and chemical resistance.
Tires, Rubber and Elastomer	Coupling of resin with mineral fillers for improved composite strength, toughness, abrasion resistance, rolling resistance, traction and wear, wet electrical properties and rheology control, fewer mixing steps and better filler dispersion.
Thermoplastics	Moisture-curable polyethylene for cable & pipe, mineral filler and pigment treatment for dispersibility and coupling of resins with fillers in high performance thermoplastic and HFFR compounds.

Tel:+86-25-86371192 86371193 Fax:+86-25-86371191 ext.0
Http://www.capatue.com E-mail:sale@capatue.com
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NANJING CAPATUE CHEMICAL CO.,LTD

Functional additives to help you be more successful!

In today's global market, customers always want you to produce parts faster, with improved performance qualities – all at a total lower cost. Capatue organofunctional silanes and organometallic titanates (zirconates and aluminates) can open a world of new opportunities to enhance your existing products and help you realize increased profits. We can supply you not only the common liquid form products but also their powder form and pellet form masterbatch, they can meet all of your demands of various applications and processes.

Silane and its powder, pellet masterbatch

Titanate and its powder, pellet masterbatch

Silane Coupling Agents

For organofunctional silane product line we have at least 5 sorts:

1. **Traditional liquid silanes** with various organic groups as below:

Amino silanes	Epoxy silanes	Acryl silanes
Vinyl silanes	Mercapto, Sulfur silanes	Ureido silanes
Alkyl silanes	Isocyanato silanes	alpha-silanes

2. **Silane oligomer and hydrolysate:** including vinyl, amino, amino/alkyl and alkyl types. Their high boiling point and high flash point, together with low VOC release gives it outstanding advantages respect safety and handling during processing.
3. **Formulated silane (so-called silane cocktail):** It is a fully crosslinking system (including vinylsilane, peroxide, catalyst, antioxidant and metal deactivator) developed for silane XLPE Wire/Cables and PEX-b pipes. It is equivalent to Silcat from Momentive or Dynasylan SILFIN from Evonik Degussa.
4. **Dry silane (pellet):** It is the vinylsilane cocktail adsorbed on highly foamed porous polymer carrier, which is the equivalent product to XL-PEarl from Momentive or Brugg Kabel AG.
5. **Dry silane (powder):** It is the mixture of organofunctional silanes (amino, epoxy, vinyl, acryl and mercapto) and silicate carrier, 65% active ingredients contained.

Titanate Coupling Agents

Our organometallic titanates (zirconates and aluminates) product line also including 3 product sublines:

1. **Regular liquid organometallic titanates (zirconates and aluminates):**

Neoalkoxy titanates	Monoalkoxy titanates	Quat titanates
Chelate titanates	Zirconates	Aluminates

2. **DLC series powder form titanate:** it is 65% active coupling agent powder and equivalent to Ken-React® CAPOW®. It is very easy for using and handle.
3. **MB series pellet titanate masterbatch:** it is 20% active coupling agent contained mastbatch and equivalent to Ken-React® CAPS®. It is can be used directly in injection, extrusion and blowing mold process.

All those products are customer-friendly and customer -orientated, thus you will find more benefits and convenience when you use them.

Tel:+86-25-86371192 86371193 Fax:+86-25-86371191ext.0
Http://www.capatue.com E-mail:sale@capatue.com
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SiLink™ Silanes Product List

Products	Chemical Name	CAS Nr.	Equivalent products						
			Momentive	Dow Corning	Shin-Etsu	Evonik	Wacker	Chisso	UTC
Amino Silanes									
SCA-A10M	3-Aminopropyltrimethoxysilane	13822-56-5	A-1110	Z-6610	KBM-903	AMMO	GF 96		
SCA-A10E	3-Aminopropyltriethoxysilane	919-30-2	A-1100	Z-6011	KBE-903	AMEO	GF 93		
SCA-A10T	3-Aminopropylmethyldimethoxysilane	3663-44-3	A-2110		KBM-902				
SCA-A10F	3-Aminopropylmethyldiethoxysilane	3179-76-8	A-2100	Z-6015	KBE-902	1505	——		
SCA-A20M	[3-(2-Aminoethyl)aminopropyl]trimethoxysilane	1760-24-3	A-1120	Z-6020	KBM-603	DAMO	GF 9		
SCA-A20E	[3-(2-Aminoethyl)aminopropyl]triethoxysilane	5089-72-5	Y 11763	Z-6021	KBE-603		GF 90		
SCA-A20T	3-(2-Aminoethylamino)propylmethyldimethoxysilane	3069-29-2	A-2120	Z-6436	KBM-602	1411	GF 95		
SCA-A20F	3-(2-Aminoethylamino)propylmethyldiethoxysilane								
SCA-A30M	3-[2-(2-Aminoethylamino)ethylamino]propyltrimethoxysilane	35141-30-1	A-1130			TRIAMO			T2910
SCA-A30T	3-[2-(2-Aminoethylamino)ethylamino]propylmethyldimethoxysilane								
SCA-A62M	3-(N-Styrylmethyl-2-aminoethylamino)-propyltrimethoxysilane hydrochloride	34937-00-3	——	Z-6032	KBM 575	——	——		
SCA-A64M	N-(n-Butyl)-3-aminopropyltrimethoxysilane	31024-56-3	——	——	——	1189	——		
SCA-A64E	N-(n-Butyl)-3-aminopropyltriethoxysilane								
SCA-A66M	N-Cyclohexyl-3-aminopropyltrimethoxysilane	3068-78-8	——	——	——	——	GF 92		
SCA-A67W	Bis(trimethoxysilylpropyl)amine	82985-35-1	A-1170	——	——	1124	——		
SCA-A67X	Bis(triethoxysilylpropyl)amine	13497-18-2	——	——	——	1122	——		
SCA-A69M	3-(Phenylamino)propyltrimethoxysilane	3068-76-6	Y-9669	Z-6883	KBM 573				
SCA-A81M	(N,N-Dimethyl-3-aminopropyl)trimethoxysilane	2530-86-1							
SCA-A82M	(N,N-Diethyl-3-aminopropyl)trimethoxysilane	41051-80-3							D4477
Epoxy Silanes									
SCA-E87M	3-Glycidoxypropyltrimethoxysilane	2530-83-8	A-187	Z-6040	KBM-403	GLYMO	GF 80		
SCA-E87E	3-Glycidoxypropyltriethoxysilane	2602-34-8	A-1871	Z-6041	KBE-403	GLYEO	GF 82		
SCA-E87T	3-Glycidoxypropylmethyldimethoxysilane	65799-47-5		Z-6044	KBM-402			S520	
SCA-E87F	3-Glycidoxypropylmethyldiethoxysilane	2897-60-1	Wetlink 78	Z-6042	KBE 402	——	——		
SCA-E86M	2-(3,4-Epoxycyclohexyl)ethyl]trimethoxysilane	3388-04-3	A-186	Z-6043	KBM 303	——	——		
SCA-E86E	2-(3,4-Epoxycyclohexyl)ethyl]triethoxysilane	10217-34-2	CoatOSil 1770	——	KBE 303	——	——		
Acryl Silanes									
SCA-R74M	3-Methacryloxypropyltrimethoxysilane	2530-85-0	A-174	Z-6030	KBM-503	MEMO	GF 31	S710	M8550
SCA-R74E	3-Methacryloxypropyltriethoxysilane	21142-29-0	Y 9936	Z-6036	KBE-503				
SCA-R74T	3-Methacryloxypropylmethyldimethoxysilanesilane	14513-34-9		Z-6033	KBM-502				
SCA-R74F	3-Methacryloxypropylmethyldiethoxysilanesilane								
SCA-R75M	3-Acetoxypropyltrimethoxysilane	59004-18-1							
Sulfur Silanes									
SCA-S89M	3-Mercaptopropyltrimethoxysilane	4420-74-0	A-189	Z-6062	KBM-803	MTMO	GF 70	S810	M8500
SCA-S89E	3-Mercaptopropyltriethoxysilane	14814-09-6	A-1891	Z-6911	——	——	——		
SCA-S69X	Bis[3-(triethoxysilyl)propyl]tetrasulfide	40372-72-3	A-1289	Z-6940	KBE-846	Si-69			B2494
SCA-S69X/C	The mixture of SCA-S69X and carbon black (50:50)								
SCA-S69X/S	The mixture of SCA-S69X and silica (65:35)								
SCA-S69X/R	SCA-S69X rubber masterbatch								
SCA-S75X	Bis[3-(triethoxysilyl)propyl]disulfide	56706-10-6	A-1589	Z-6920	——	Si 75	——		
SCA-S64E	3-Thiocyanatopropyltriethoxysilane	34708-08-2				Si 264			
Vinyl Silanes									
SCA-V71M	Vinyltrimethoxysilane	2768-02-7	A-171	Z-6300	KBM-1003	VTMO	XL 10	S210	V4917
SCA-V71E	Vinyltriethoxysilane	78-08-0	A-151	Z-6518	KBE-1103	VTEO	GF 56	S220	V4910
SCA-V71C	Vinyltri(2-methoxyethoxy)silane	1067-53-4	A-172	Z-6172	KBC-1003	VTMOEO	GF 58		

SCA-V71P	Vinyltri(isopropoxy)silane	18023-33-1	CoatOSil 1706						
Ureido Silanes									
SCA-U60M	3-Ureidopropyltrimethoxysilane	23843-64-3	A-1524	——	——	——	GF 98		
SCA-U60E	3-Ureidopropyltriethoxysilane	23779-32-0	A-1160		KBE-585	2201EQ			T2507
Isocyanato Silanes									
SCA-Y25M	3-Isocyanatopropyltrimethoxysilane	15396-00-6	A-Link 35	——	——	——	GF 40		
SCA-Y25E	3-Isocyanatopropyltriethoxysilane	24801-88-5	A-Link 25	——	KBE-9007	——	——		
Alkyl Silanes									
SCA-K01M	Methyltrimethoxysilane	1185-55-3							
SCA-K01E	Methyltriethoxysilane	2031-67-6							
SCA-K03M	n-Propyltrimethoxysilane	1067-25-0		Z-6264	KBM-3033	PTMO			P0810
SCA-K03E	n-Propyltriethoxysilane	2550-02-9	A-138	Z-6535	KBE-3033	PTEO			
SCA-K08M	n-Octyltrimethoxysilane	3069-40-7		Z-6672		OCTMO			O9840
SCA-K08E	n-Octyltriethoxysilane	2943-75-1	A-137	Z-6341		OCTEO			O9835
SCA-K12M	n-Dodecyltrimethoxysilane	3069-21-4							
SCA-K16M	n-Hexadecyltrimethoxysilane	16415-12-6							
SCA-K02W	1,2-Bis(trimethoxysilyl)ethane	18406-41-2	——	——	——	——	——		
SCA-K02X	1,2-Bis(triethoxysilyl)ethane	16068-37-4	Y-9805	——	——	——	——		
Phenyl Silanes									
SCA-P61M	Phenyltrimethoxysilane	2996-92-1							
SCA-P61E	Phenyltriethoxysilane	780-69-8							
SCA-P61T	Phenylmethyldimethoxysilanesilane	3027-21-2							
SCA-P61F	Phenylmethyldiethoxysilanesilane	775-56-4							
SCA-P62M	Diphenyldimethoxysilanesilane	6843-66-9							
SCA-P62E	Diphenyldiethoxysilanesilane	2553-19-7							
α-Silanes									
SCA-αA22M	(N,N-Diethyl-3-aminopropyl)triethoxysilane	15180-47-9							
SCA-αA42M	N-Phenylaminomethyltrimethoxysilane	77855-73-3					XL 973		
SCA-αA42E	N-Phenylaminomethyltriethoxysilane	3473-76-5							
SCA-αA43E	Dichloromethyltriethoxysilane	19369-03-0							
SCA-αA45M	N-(6-Aminohexyl)aminomethyltriethoxysilane	15129-36-9							
Silane Oligomers/Hydrolysates									
SCA-HA51E	Aqueous 3-aminopropylsilane hydrolysate		1106			HYDROSIL 1151			
SCA-HA46M	Oligomeric diamino/alkyl silane					1146			
SCA-OV17M	Vinyl siloxane oligomer, methoxy functional					6490			
SCA-OV17E	Vinyl siloxane oligomer, ethoxy functional					6498			
SCA-OV17C	Vinyl siloxane oligomer, 2-methoxyethoxy functional					6598			

Formulated Silanes (Silane Cocktails)

VS series	**Description:** It is a fully crosslinking system (including vinylsilane, peroxide, catalyst, antioxidant and metal deactivator) developed for manufacturing of Silane XLPE Wire/Cables and PEX-b pipes. **Equivalents and Grades:** It is equivalent to Silcat from Momentive or Dynasylan SILFIN from Evonik Degussa, we can supply all Silcat VS and Dynasylan SILFIN equivalent products, some typical grades are as below: Silcat® RHS, VS-758-0, VS-904, VS 963 and SILFIN 06, 25, 50 and etc.,

Dry Silanes Masterbatch

XLM Pellet series	**Description:** It is the vinylsilane cocktail adsorbed on highly foamed porous polyolefin carrier, which is developed for manufacturing of silane XLPE wire/cables and PEX-b pipes. **Equivalents and Grades:** It is the equivalent product to DS···XL-PEarl from Momentive or Brugg Kabel AG. All DS XL PEarl® equivalents are available upon customer's request, some typical grades includes: DS XL PEarl® 30,DS XL PEarl®50, DS XL PEarl®60, DS XL PEarl®70 and etc.
DLC Powder series	**Description:** It is a free-flowing powder and the mixture of organofunctional silanes (amino, epoxy, vinyl, acryl and mercapto) and inactive silicate carrier, 65% active ingredients contained. **Equivalents and Grades:** DSC® series from Excel Polymers, LLC. / DLC® series from Natrochem, Inc./ Alcanpoudre® series from Safic Alcan UK Limited

南京能德新材料技术有限公司 NANJING CAPATUE CHEMICAL CO.,LTD | Tel:+86-25-86371192 86371193 Fax:+86-25-86371191 ext.0
Http://www.capatue.com E-mail:sale@capatue.com

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Grade	Chemical Name	CAS#	Equivalents			
			Kenrich	DuPont	Johnson Matthey	Nippon SODA
Monoalkoxy titanate						
TCA-K12	Titanium IV 2-propanolato, tris(dioctyl)phosphato-O	68585-79-5	KR 12			
TCA-K9S	Titanium IV 2-propanolato, tris(dodecyl)benzenesulfanato-O	61417-55-8	KR 9S			
TCA-KTTO	Titanium IV 2-propanolato, tris octadecenoato-O	136144-62-2	KR TTS			
TCA-KTTT	Titanium IV 2-propanolato, tris octadecanoato-O	61417-49-0	KR TTS			
TCA-K38S	Titanium IV 2-propanolato, tris(dioctyl)pyrophosphato-O	67691-13-8	KR 38S			
TCA-K238S	Titanium IV bis(dioctyl)pyrophosphato-O, ethylenediolato (adduct), bis(dioctyl)hydrogen phosphite	65467-75-6	KR 238S			
TCA-K238T	Titanium IV ethylenediolato, is(dioctyl)pyrophosphato-O, bis(triethyl)amine salt		KR 238T			
TCA-K44	Titanium IV 2-propanolato, tris(3,6-diaza)hexanolato	65380-84-9	KR 44			
TCA-K41B	Titanium IV tetrakis 2-propanolato, adduct 2 moles (dioctyl)hydrogen phosphate	65460-52-8	KR 41B			
TCA-K46B	Titanium IV tetrakis octanolato adduct 2 moles (ditridecyl) hydrogen phosphite	68585-68-2	KR 46B			
TCA-K55	Titanium IV tetrakis(bis 2-propenolato methyl)-1-butanolato adduct 2 moles (di-tridecyl)hydrogen phosphite	64157-14-8	KR 55			
TCA-238J	Titanium IV bis(dioctyl)pyrophosphato-O, ethylenediolato, (adduct) 2 moles of 2-methylpropenoamido-N active amine	198840-66-3	KR 238J			
Neoalkoxy titanate						
TCA-L01	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, trisneodecanoato-O	103334-85-6	LICA 01			
TCA-L09	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, iris(dodecyl)benzenesulfonato-O	103406-74-2	LICA 09			
TCA-L12	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, tris(dioctyl)phosphato-O	110438-25-0	LICA 12			
TCA-L38	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, tris(dioctyl)pyrophosphato-O	103432-54-8	LICA 38			
TCA-L38J	Titanium IV (bis-2-propenolato-methyl)-1-butanolato, bis(dioctyl) pyrophosphato-O, (adduct) 3 moles N,N-dimethylamino-alkyl propenoamide	117002-37-6	LICA 38J			
TCA-L44	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, tris(2-ethylenediamino)ethylato	107541-22-0	LICA 44			
TCA-L97	Titanium IV 2,2(bis 2-propenolatomethyl)butanolato, tris(3-amino)phenylato	107525-86-0	LICA 97			
Titanate Chelates						
TCA-AA	Titanium diisopropoxide bis(acetylacetonate)	17927-72-9		Tyzor® AA		
TCA-AA75	Titanium diisopropoxide bis(acetylacetonate)	17927-72-9		Tyzor® AA75	VERTEC TAA	T-50(TAA)

TCA-GBO	Titanium diisopropoxide bis(acetylacetonate)	17927-72-9		Tyzor® GBO		
TCA-GBA	Titanium diisopropoxide bis(acetylacetonate)	17927-72-9		Tyzor® GBA		
TCA-AA65	Titanium ethoxide isopropoxide bis(acetylacetonate)	445398-76-5		Tyzor® AA65		
TCA-AA105	Titanium ethoxide isopropoxide bis(acetylacetonate)	445398-76-5		Tyzor® AA105		
TCA-AA95	Titanium isobutoxide isopropoxide bis(acetylacetonate)	97281-09-9		Tyzor® Aa95		
TCA-IAM	Titanium butyl phosphate			Tyzor® IAM		
TCA-PI2	Titanium ethoxy iso-propoxy bis (2,4-pentanedionate)	68586-02-7			VERTEC PI2	
TCA-IA10	Titanium butyl phosphate	109037-78-7			VERTEC IA10	
TCA-DC	Titanium diisopropoxy bis(ethoxyacetoacetyl)	27858-32-8		Tyzor® DC	VERTEC TEAA	T-60(TEAA)
TCA-IBAY	Titanium diisobutoxide bis(ethoxyacetoacetyl)	83877-91-2		Tyzor® IBAY		
TCA-BEAT	Titanium dibutoxide bis(ethoxyacetoacetyl)	20753-28-0		Tyzor® BEAT		
TCA-TE	Titanium diisopropoxide bis(triethanolamine)	36673-16-2		Tyzor® TE		
Zirconates						
ZCA-N01	Zirconium IV 2,2(bis-2-propenolatomethyl)butanolato, trisneodecanolato-O	110392-54-6	NZ-01			
ZCA-N09	Zirconium IV 2.2(bis-2-propenolatomethyl)butanolato, tris(dodecyl)benzenesulfonato-O	109766-35-0	NZ-09			
ZCA-N12	Zirconium IV 2,2(bis-2-propenolatomethyl)butanolato, tris(dioctyl)phosphato-O	117101-65-2	NZ-12			
ZCA-N38	Zirconium IV 2,2(bis-2-propenolatomethyl)butanolato, tris(dioctyl)pyrophosphato-O	103455-10-3	NZ-38			
ZCA-N44	Zirconium IV 2,2(bis-2-propenolatomethyl)butanolato, tris(2-ethylenediamino)ethylato	103373-95-1	NZ-44			
ZCA-N97	Zirconium IV 1,1(bis-2-propenolatomethyl)butanolato, tris(2-amino)phenylato	111083-78-4	NZ-97			
ZCA-TEAZ	Tetrakis (triethanolaminato) zirconium (IV)	101033-44-7		TYZOR® TEAZ		
Aluminates						
ACA-KA322	Di-isopropyl(oleyl)aceto acetyl aluminate	80481-35-3	KA 322			
ACA-AA1	Aluminum diisopropoxide acetylacetonate					
ACA-AA2	Aluminum isopropoxide bis(acetylacetonate)					
ACA-AA3	Aluminum tri(acetylacetonate)	13963-57-0				
ACA-EAA1	Aluminum diisopropoxy ethoxyacetoacetyl	14782-75-3				
Titanate Masterbatches						
DLC-L12	Powder masterbatch form of 70% active TCA-L12 in LLDPE binder	110438-25-0	CAPOW L12/H			
MB-L12LL	Pellets masterbatch form of 20% active TCA-L12 in LLDPE binder	110438-25-0	CAPS L12/L			

More DLC powder titanate/zirconate masterbatches (equivalent to Ken-React® CAPOW®) and MB pellet titanate/zirconate masterbatches (equivalent to Ken-React® CAPS®) are available upon customer's request.

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NANJING CAPATUE CHEMICAL CO.,LTD

Add: Building 12, Zidong Int'l Industry Park, 2 Zidong Road, Maqun Town,
Qixia District, Nanjing, China Post code: 210049
Tel: +86-25-8637 1192 8637 1193 Fax: +86-25-8637 1191-0
http: //www.capatue.com E-mail: sale@capatue.com