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# About US

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Since its establishment in Nagoya, Japan in 1894, Kowa Group has grown into a multinational company actively engaged in various manufacturing and trading activities in the fields of pharmaceutical, life science and information technology, textiles, machinery, and various consumer products. During its long history Kowa has consistently strived to meet the changing needs, and with its continuing entrepreneurial initiative is determined to meet the needs of future generations.

Today Kowa Europe GmbH is part of a wide distribution network connecting international supply and demand for specialty chemicals. Long-standing relationships with manufacturers in Japan are the foundation and the core of Kowa Europe's value proposition. Our strong sourcing acumen in Asia's emerging markets - China and India - create a well-balanced product portfolio that our customers in Europe profit from since over 30 years now. Our goal is not only to sell products, but to find the perfect solution for our customers.

# Our Values



Kowa has been a trusted partner in the Chemical Industry for many years. Our services aspire to completely fulfill our customers' demand in terms of quality, flexibility and conduct in every aspect of business by identifying key areas for improvement and relevant projects to support those improvements. We handle global tenders, technical projects, long term collaborations as well as highly specific requests with utmost care to ensure the same quality.

# Your Benefit



Our knowledge in supplying goods worldwide Kowa applies with focus on compliance with applicable laws and regulations worldwide. Legal requirements are complex and keeping Up to Date with the latest developments is crucial to ensure that we offer products to EU and non-EU customers which are safe and complete. At Kowa we have the necessary expertise for advanced compliance management in our Value Chain starting from the selection of raw materials to the supply and our products to end customers.



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# Acrylates

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# Mono-Acrylates

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Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp.[°C]	Melting P. [°C]
	<b>AIB</b> Iso-Butyl Acrylate		106-63-8	Low Viscosity   High Reactivity	0,8	- 26	- 61
<b>Viscoat 197</b>	<b>BNA</b> Branched-Nonyl Acrylate		51952-49-9	Low Viscosity   High Reactivity	2,0	- 37	
<b>Viscoat 160</b>	<b>BZA</b> Benzyl Acrylate		2495-35-4	Good Adhesion   Low Viscosity   High RI	2,2	6	
	<b>β-CEA</b> 2-Carboxylethyl Acrylate		24615-84-7	Good Adhesion   Good Lflexibility			
<b>Viscoat 155</b>	<b>CHA</b> Cyclohexyl Acrylate		3066-71-5	Low Viscosity	2,5	15	- 60
	<b>CPEA</b> Cumyl Phenoxy Ethyl Acrylate		86148-08-5	High Gloss   High RI   Low Shrinkage	15 - 25		
<b>Viscoat 200</b>	<b>CTFA</b> Cyclic Trimethylolpropane Formal Acrylate		66492-51-1	Good Adhesion   Good Toughness	10,0		27
	<b>DCPA</b> Dicyclopentenyl Acrylate		33791-58-1	High Tg   Good adhesion	8 - 18		
	<b>DCPEA</b> Dicyclopentenyl Oxyethyl Acrylate		65983-31-5	Good Adhesion   Good Flexibility	70 - 100		
<b>Viscoat 190</b>	<b>EOEOEA</b> Ethoxy Ethoxy Ethyl Acrylate		7328-17-8	Good Flexibility   Low Shrinkage	2,9	< - 60	- 67
	<b>4-HBA</b> 4-Hydroxybutyl Acrylate		2478-10-6	Good Adhesion   Scratch Resistance	9,0	- 112	- 32
	<b>2-HEA</b> 2-Hydroxyethyl Acrylate		818-61-1	Good Adhesion   Chemical Resistance Scratch Resistance	5,9	- 70	- 15

# Acrylates

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# Mono-Acrylates

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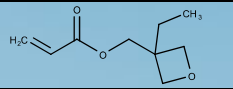
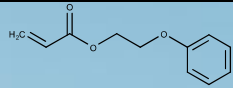
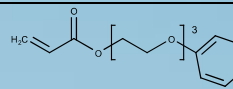
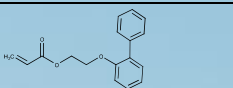
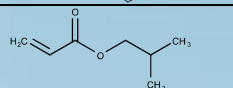
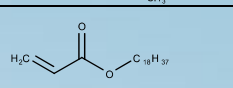
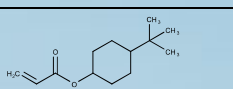
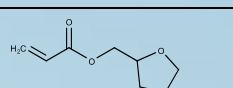
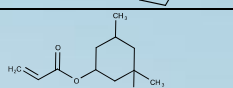
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp.[°C]	Melting P. [°C]
	<b>HPA</b> 2-Hydroxypropyl Acrylate		999-61-1	Good Adhesion   Chemical Resistance Scratch Resistance	4,1	- 15	- 70
	<b>IBXA</b> Isobornyl Acrylate		5888-33-5	Good Adhesion   Good Toughness Water and Heat Resistance	7,7	97	- 60
	<b>IDAA</b> Iso-Decyl Acrylate		[1330-61-6]	Good Adhesion   Chemical Resistance	2,7	- 62	
	<b>INAA</b> Iso-Nonyl Acrylate		51952-49-9		1,9	- 58	
	<b>ISTA</b> Iso-stearyl Acrylate		93841-48-6	High Hydrophobicity   Low Surface Tension	17	- 18	- 50
	<b>LA</b> Lauryl Acrylate		2156-97-0	Good Water Resistance   Good Flexibility Low Shrinkage	4,0	- 23	0
	<b>Medol-10</b> (2-Ethyl-2-Methyl-1,3-Dioxolane-4-yl)- Methyl Acrylate		69701-99-1	High Reactivity   Low Viscosity Low Surface Tension   Substitute for THFA	5,1		- 10
	<b>MPE400A</b> Methoxy PEG Acrylate		32171-39-4		25 – 30		N/A
	<b>MPOBA</b> M-Phenoxybenzyl Acrylate		409325-06-0	High Gloss   High RI Low Shrinkage	13 - 20		
	<b>MTA</b> 2-Methoxyethyl Acrylate		3121-61-7		1,5	- 50	- 44
	<b>NOAA</b> Octyl Acrylate		5499-59-4	Low Viscosity   Low Shrinkage Good Flexibility	2,0	- 65	- 20
	<b>NP2.5POA</b> Propoxylate Nonylphenol Acrylate		84170-74-1	Good Adhesion   Low Shrinkage Good Flexibility	100 - 150		

# Acrylates

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# Mono-Acrylates

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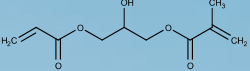
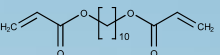
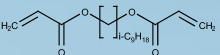
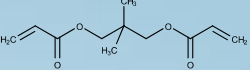
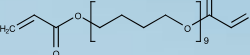
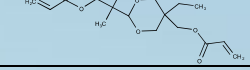
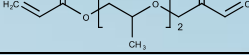
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp.[°C]	Melting P. [°C]
	<b>OXE-10</b> 3-Ethyl-3-Oxatanylmethyl Acrylate		41988-14-1	Dual Cure	4,3	- 5	
<b>Viscoat 192</b>	<b>PEA</b> Phenoxyethyl Acrylate		48145-04-6	High Reactivity   Low Viscosity	8,7	- 22	< - 60
	<b>PH3EOA</b> Ethoxylated Phenoxy Acrylate		56641-05-5	High Reactivity   Low Viscosity Low Skin Irritation	15 - 35		
	<b>o-PPEA</b> Ortho-Phenyl Phenoxyethyl Acrylate		720009-86-0	High Gloss   High RI Low Shrinkage	100 - 200		
	<b>STA</b> Stearyl Acrylate		4813-57-4	Good Water Resistance   Good Flexibility Low Shrinkage	8,6 [30 °C]	30	30
	<b>TBA</b> t-Butyl Acrylate		1663-39-4	High Reactivity   Good Adhesion	0,9	14	- 69
	<b>TBCHA</b> Tert-Butylcyclohexyl Acrylate		84100-23-2	Good Flexibility   Low Shrinkage	5 - 15		
<b>Viscoat 150</b>	<b>THFA</b> Tetrahydrofurfuryl Acrylate		2399-48-6	Good Adhesion   Good Chemical Resistance Weatherability	2,8	- 12	< - 60
<b>Viscoat 196</b>	<b>TMCHA</b> 3,3,5-Trimethyl Cyclohexyl Acrylate		86178-38-3	Good Adhesion   Low Shrinkage Low Surface Tension	2,7	52	
<b>Viscoat 150 D</b>	THFA-based		1620054-48-9		5,9	- 18	
<b>Viscoat 190D</b>	EOEOEA-based		188746-52-3		4,8	- 47	

# Acrylates

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# Multi-Acrylates

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Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Melting P. [°C]
701A	2-Hydroxy 3-Methacryl Propyl Diacrylate		1709-71-3	Improved Adhesion	44	< - 18
A-BPEF 2	9,9-Bis-[4-(2-Hydroxyethoxy)-Phenyl] Fluorine Diacrylate	On Request	1234827-45-2		91.000 [60 °C]	
A-DCP	Tricyclodecane Dimethanol Diacrylate	On Request	42594-17-2	High Heat Resistance   Low Viscosity Coating	135	
A-DOD-N	1,10-Decanediol Diacrylate		13048-34-5	Low Viscosity   Lipophilicity Reactive Diluent		18 - 20
A-IND	Iso-Nonane Diol Diacrylate		120515-20-0		10	
A-NPG	Neopentyl Glycol Diacrylate		2223-82-7	Low Viscosity   Lipophilicity Reactive Diluent	6	< 10
A-PTMG-65	Poly-Tetramethylene Glycol Diacrylate		52277-33-5	Flexibility   Low Concentration 3D Printing & Coating	140	
DOGDA	Dioxane Glycol Diacrylate		87320-05-6	Chemical and Heat Resistance   Fast Curing	250 - 450	
DPGDA	Dipropylene Glycol Diacrylate		57482-68-1	Low Viscosity   Good Solvency Fast Cure Speed	7 - 13	

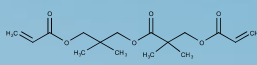
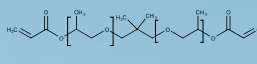
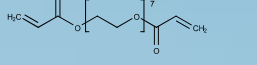
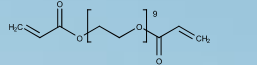
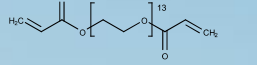
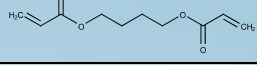
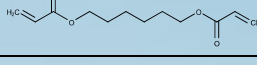
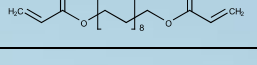
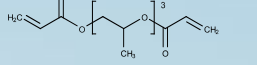
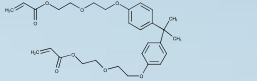


# Acrylates

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# Multi-Acrylates

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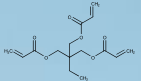
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Melting P. [°C]
<b>HHPDA</b>	Hydroxypivalyl Hydroxypivalate Diacrylate		30145-51-8 250-072-3 2223-82-7 218-741-5	Good Flexibility   Good Solvency Improvement or Adhesion on Metals	15 - 35	
<b>NPG2PODA</b>	Propoxylated Neopentyl Glycol Diacrylate		2223-82-7	Low Tension Surface   Low Shrinkage Improved Adhesion	10 - 20	
<b>PEG(300)DA</b>	Polyethylene Glycol Diacrylate		26570-48-9	Good Flexibility   Low Volatility	25 - 45	
<b>PEG(400)DA</b>	Polyethylene Glycol Diacrylate		26570-48-9	Good Flexibility   Water Soluble Low Volatility	30 - 40	
<b>PEG(600)DA</b>	Polyethylene Glycol Diacrylate		26570-48-9	Good Flexibility   Water Soluble Low Volatility	80 - 100	
<b>Viscoat 195</b>	<b>1,4-BDDA</b> 1,4-Butanediol Diacrylate		107481-28-7	Crosslinker	5,0	< - 60
<b>Viscoat 230</b>	<b>1,6-HDDA</b> 1,6-Hexanediol Diacrylate		1070-70-8	Crosslinker	7,0	7 - 8
<b>Viscoat 260</b>	<b>1,9-NDDA</b> 1,9-Nonanediol-Diacrylate		13048-33-4	Good Adhesion   Good Solvency Good Weatherability	8,0	
<b>Viscoat 230D</b>	1,6-HDDA-based	On Request	1208099-65-3	Crosslinker	12 - 24	
<b>Viscoat 310HP</b>	Tripropyleneglycol Diacrylate		42978-66-5	Crosslinking   Thinner	9 - 19	
<b>Viscoat 540</b>	Poly (Bisphenol A Diglycidyl Ether) Diacrylate	On Request	53814-24-7	Crosslinker	13.000 – 17.000 [50 °C]	
<b>Viscoat 700HV</b>	Ethoxylated Bipshenol A Diacrylate		64401-02-1	Crosslinker	1.000 – 1.300	

# Acrylates

# 10

# Multi-Acrylates

# 10

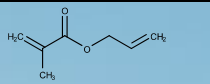
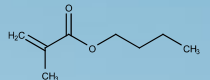
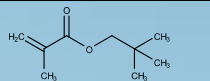
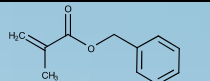
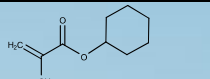
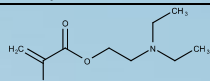
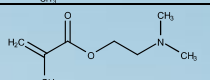
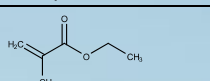
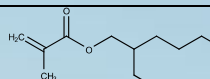
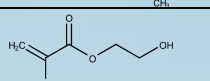
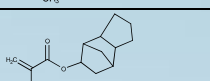
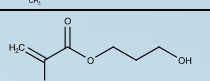
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Melting P. [°C]
<b>DPHA</b>	Dipenta Erythritol Hexaacrylate	On Request	60506-81-2 29480-58-9	High Reactivity   High Crosslinking Good Abrasion and Chemical Resistance	5.000 - 7.000	
<b>THEICTA</b>	Tris-(2-Hydroxy Ethyl) Iso-Cyanurate Triacrylate	On Request	40220-08-4	Good Impact strength Good Abrasion and Chemical Resistance		
<b>Viscoat 295</b>	<b>TMP3A</b> Trimethylol Propane Triacrylate		15625-89-5	High Gloss   High Hardness Good Abrasion Resistance	70 – 90	< - 60
<b>Viscoat 300</b>	<b>PET3A</b> Penta-Erythritol Triacrylate	On Request	3524-68-3 4986-89-4	High Crosslinking   Good Hardness	400 – 700	15 - 30
<b>Viscoat 802</b>	<b>TriPEA</b> Tri-Pental-Erythritol Triacrylate	On Request	182072-44-2	Crosslinker	9.000 – 15.000	

# Acrylates

# 11

# Mono-Methacrylates

# 11

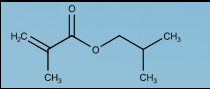
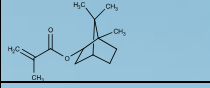
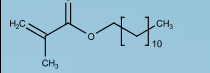
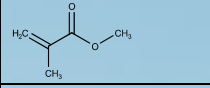
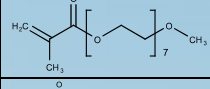
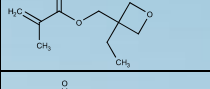
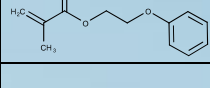
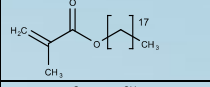
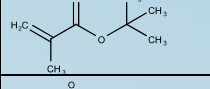
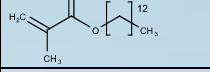
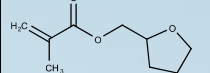
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp. [°C]
<b>AMA</b> Allyl Methacrylate		1996-5-9	Dual Cure   Good Hardness Good Heat Resistance   Low Shrinkage	1,09	52	
<b>n-BMA</b> n-Butyl Methacrylate		97-88-1	High Reactivity   Adhesion	0,92	20	
<b>t-BMA</b> t-Butyl Methacrylate		585-07-9	High Reactivity   Adhesion	5 - 15		
<b>BZMA</b> Benzyl Methacrylate		2495-37-6	High RI   Good Adhesion Low Viscosity	2,68	54	
<b>CHMA</b> Cyclohexyl Methacrylate		101-3-9	High Reactivity   Chemical Heat and Scratch Resistance   Good Adhesion	2,50	83	
<b>DEMA</b> Diethyl Aminoethyl Methacrylate		105-16-8		1,80	16 - 24	
<b>DMAA</b> Dimethyl Aminoethyl Methacrylate		2867-47-2	Good Adhesion   Water Solubility	1,34	18	
<b>EMA</b> Ethyl Methacrylate		97-63-2		0,62	65	
<b>EHMA</b> Ethylhexyl Methacrylate		688-84-6	Hydrophobicity   Heat Resistance Flexibility	1,85	- 10	
<b>HEMA</b> 2-Hydroxyethyl Methacrylate		868-77-9	Chemical Resistance   Crosslinking	6,79	55	
<b>HDCPMA</b> Dicyclopentanyl Methacrylate		34759-34-7		7 - 17		
<b>HPMA</b> 2-Hydroxypropyl Methacrylate		27813-02-1	Chemical Resistance   Crosslinking Scratch Resistance	9,28	26	

# Acrylates

# 12

# Mono-Methacrylates

# 12

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp. [°C]
<b>IBMA</b> Iso-Butyl Methacrylate		97-86-9	Dual Cure   Good Hardness Good Heat Resistance   Low Shrinkage	0,88	48	
<b>IBXMA</b> Iso-Bornyl Methacrylate		7534-94-3		2 - 10		
<b>LMA</b> Lauryl Methacrylate		142-90-5	High Reactivity Adhesion	4,60	- 65	
<b>MMA</b> Methyl Methacrylate		80-62-6	High RI   Good Adhesion Low Viscosity	0,56	105	
<b>MPEG(350)MA</b> Methoxy Polyethylene Glycol(350) Methacrylate		26915-72-0	High Reactivity   Chemical Heat and Scratch Resistance   Good Adhesion			
<b>OXE-30</b> 3-Ethyl-3-Oxetanylmethyl Methacrylate		37674-57-0	Good Adhesion   Water Solubility	4,2	2	
<b>PHEMA</b> 2-Phenoxy Ethyl Methacrylate		10595-06-9		5 - 15		
<b>SLMA</b> Alkyl Methacrylate	On Request	142-90-5 2495-25-2	Hydrophobicity   Heat Resistance Flexibility	5,06	- 62	
<b>SMA</b> Stearyl Methacrylate		32360-05-7	Chemical Resistance   Crosslinking	8,21 [30°C]	- 100	
<b>TBMA</b> tert-Butyl Methacrylate		585-07-9		0,93	107	
<b>TDMA</b> Tridecyl Methacrylate		2495-25-2	Chemical Resistance   Crosslinking Scratch Resistance	5,81	- 46	
<b>THFMA</b> Tetra-Hydro Furfuryl Acrylate		2455-24-5				

# Acrylates

## 13

# Di-Methacrylates

## 13

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]
	<b>3EDMA</b> Tri-Ethylene Glycol Dimethacrylate	On Request	109-16-0	Crosslinking Agent	10,2
	<b>4EDMA</b> Tetra-Ethylene Glycol Dimethacrylate		109-17-1	Crosslinking Agent	
	<b>BDMA</b> 1,3-Butylene Glycol Dimethacrylate		1189-08-8	Crosslinking Agent	4,4
	<b>BPA2EODMA</b> Ethoxylated Bisphenol A Dimethacrylate		41637-38-1	Crosslinking Agent	900 - 1300
	<b>EDMA</b> Ethylene Glycol Dimethacrylate		97-90-5	Crosslinking Agent	3,2
	<b>HXMA</b> Hexa-Ethylene Glycol Dimethacrylate		26570-48-9	Crosslinking Agent	4,0
	<b>TCDMA</b> Tricyclodecane Dimethanol Dimethacrylate		43048-08-4	Crosslinking Agent	80 -120
	<b>TPGDMA</b> Tripropylene Glycol Dimethacrylate		94120-00-0	Crosslinking Agent	6 - 16


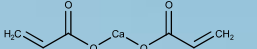
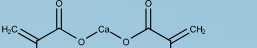
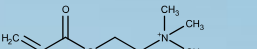

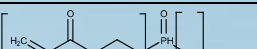

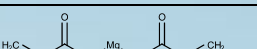
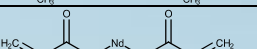



# Acrylates

# 14

# Specialty-Acrylates

# 14

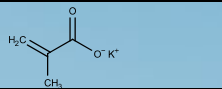
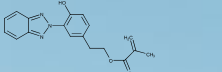
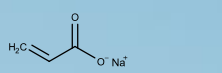
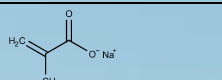
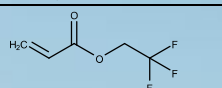
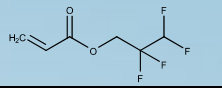
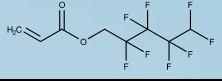
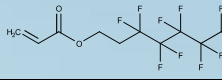
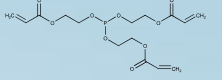
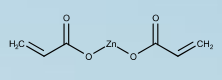
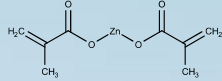
Product	Description	Structure	CAS No	pH [20 °C]	(Meth) - Acrylic Content	Metal Content	Viscosity [mPa*s]
Aluminium Acrylate	Aqueous	$Al(AA)_{3-x}X_x$	15743-20-1	1,0 – 2,0 (aqueous)			
BAC-45	Acrylated Polybutadiene		95321-56-5				4.000 – 8.000
Calcium Acrylate	Aqueous   Powder		6292-01-9	6,0 – 7,0 (aqueous)	60 – 75 %	18 – 22 %	
Calcium Meth-Acrylate	Powder		16809-88-4		65 % min.	15 % min.	
DMAMC	2-(Acryloyloxy) Ethyl Tri-Methyl Ammonium Chloride		44992-01-0				
DMCMA	Dimethyl Aminoethyl Methacrylate Methylchloride Salt		5039-78-1				
JPA-514	2-Hydroxy Ethyl Methacrylate Acid Phosphate		52628-03-2				
Magnesium Acrylate	Aqueous   Powder		5698-98-6	5,0 – 6,0 (aqueous)	70 – 85 %	12 – 15 %	
Magnesium Meth-Acrylate	Powder		7095-16-1		78 – 82 %	11 – 14 %	
Neodymium Meth-Acrylate	Powder		79718-22-2		57,5 – 63,8 %	36 – 37 %	
Potassium Acrylate	Powder		10192-85-5		60 – 64 %	31 – 36 %	

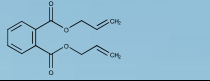
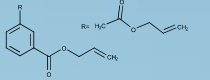
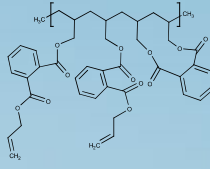
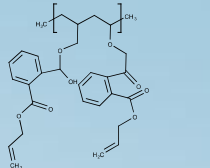
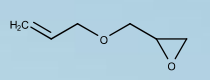
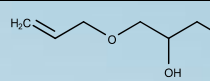
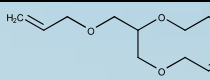
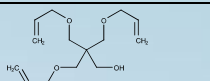
# Acrylates

# 15

# Specialty-Acrylates

# 15

Product	Description	Structure	CAS No	pH [20 °C]	(Meth) – Acrylic Content	Metal Content	Viscosity [mPa*s]	Glass Temp. [°C]	Melting P. [°C]
Potassium Meth-Acrylate	Powder		6900-35-2		65 % min.	27 – 31 %			
RUVA-93	2-[3-(2H-Benzotriazol-2-yl)-4-Hydroxyphenyl]ethyl Methacrylate		96478-09-0					90 (MMA and Styrene)	95 - 100
Sodium Acrylate	Powder		7446-81-3		20 – 24 %	60 – 75 %			
Sodium Meth-Acrylate	Powder		5536-61-8		75 - 80 %	19 – 21 %			
Viscoat 3F	2,2,2-Trifluoro Ethyl Acrylate		407-47-6				1,1	- 5	
Viscoat 4F	2,2,3,3-Tetrafluoro Propyl Acrylate		7283-71-3				1.9	- 8	
Viscoat 8F	1H,1H,5H-Octafluoro Pentyl Methacrylate		376-84-1				3,1	- 35	
Viscoat 13F	3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluoro Octyl Acrylate		17527-29-6				4,1	- 15	
Viscoat 3PA	Trisacryloyloxy Ethyl Phosphate		35057-49-9				66,6	- 30	
Zinc Acrylate	Aqueous   Powder   Oil		14643-87-9 14643-87-9	4,0 - 6,0 (Aqueous)	56 – 65 % (Powder)	27 – 31 % (P) 11,5 – 18 % (O)			
Zinc Meth-Acrylate	Powder		13189-00-9		65 % min. 60 – 64 %	26 % min 65 % min.			

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPA*s]	Softening P. [°C]
<b>DAP Monomer</b>	Diallyl Ester of <i>ortho</i> -, <i>iso</i> - and <i>tere</i> -Phtalic Acid		131-17-9	Low Odor   High Flashpoint High Stability   Anti-Gelling Agent	8,5	
<b>DAP 100 Monomer</b>	Diallyl Ester of <i>ortho</i> -, <i>iso</i> - and <i>tere</i> -Phtalic Acid		131-21-4	Low Odor   High Flashpoint High Stability   Anti-Gelling Agent	11,0	
<b>DAP A S K</b>	Diallyl Phthalate Pre-Polymer Thermosetting Resin		Pre-Polymer 25053-15-0	Easily Cured by Peroxides   Chemical, Heat And Water Resistance   Low Deterioration	70 - 100   50 - 70 30 - 50 *	70 - 100 70 - 105 65 - 100
<b>Iso DAP</b>	Diallyl Iso-Phthalate Pre-Polymer Thermosetting Resin		Pre-Polymer 25035-78-3	Superior Heat Resistance	50 - 150*	50 - 80
<b>Neo-allyl G</b>	Allyl Glycidyl Ether		106-92-3	Crosslinking   Adhesion Promoter		
<b>NeoAllyl E-10</b>	Allyl Group and two Hydroxy Groups		123-34-2	Drying Agent for Unsaturated Polyester Crosslinking for Urethane Elastomer Hydroxy and Vinyl Ether Functionality	25,0	
<b>NeoAllyl E-20G</b>	Epoxy Group and two Allyl Groups		51081-62-0	Low Viscosity   Crosslinking Agent Epoxy and Allyl Functionality	4,0	
<b>NeoAllyl P30</b>	Penta-Erythritol Triallyl Ether		1471-17-6	Component for Unsaturated Polyester Hydroxy and Allyl Functionality		

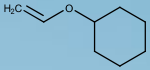
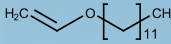
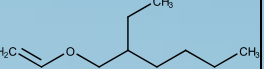
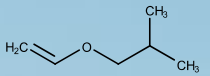
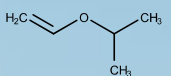
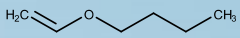
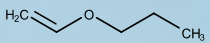
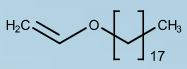
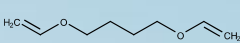
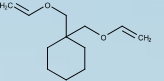
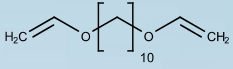
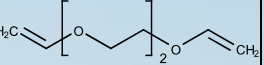
\*50% MEK solution at 30 °C

# Olefines

# 17

# Vinyl Ethers

# 17

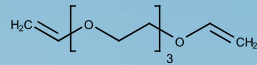
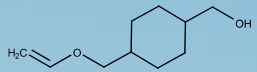
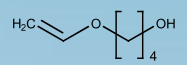
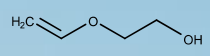
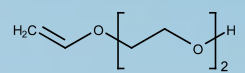
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Flash P. [°C]	Boiling P. [°C]
CHVE	Cyclohexyl Vinyl Ether		2182-55-0	Coatings   Inks Adhesives	1,1	34,0	147
DDVE Development	Dodecyl Vinyl Ether		765-14-0	Coatings   Inks Adhesives			
EHVE	2-Ethyl Hexyl Vinyl Ether		103-44-6	Coatings   Inks Adhesives	0,8	52,0	177
IBVE	Iso-Butyl Vinyl Ether		109-53-5	Coatings   Inks Adhesives	0,2	- 9,0	83
IPVE	Iso-Propyl Vinyl Ether		926-65-8	Coatings   Inks Adhesives	0,1	- 32,0	56
NBVE	n-Butyl Vinyl Ether		111-34-2	Coatings   Inks Adhesives	0,3	1,0	94
NPVE	n-Propyl Vinyl Ether		764-47-6	Coatings   Inks Adhesives	0,2	- 18,0	66
ODVE	Octadecyl Vinyl Ether		930-02-9	Coatings   Inks Adhesives			150 (0.13 kPa)
BDVE	1,4-Butandiol Divinyl Ether		3891-33-6	Coatings   Inks Adhesives	1,1	168,0	54
CHDVE	1,4-Cyclohexane Dimethanol Divinyl Ether		17351-75-6	Coatings   Inks Adhesives	4,6	120,0	104 (0.4 kPa)
DCDVE Development	1,10-Decandiol Divinyl Ether		693-79-8	Coatings   Inks Adhesives			
DEDGVE	Diethyleneglycol Divinylether		764-99-8	Coatings   Inks Adhesives	2,2	84,5	199

# Olefines

# 18

# Vinyl Ethers

# 18

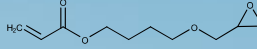
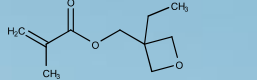
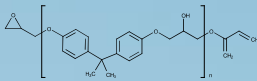
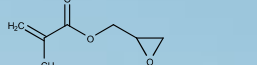
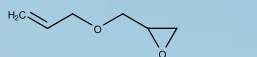
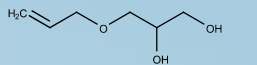
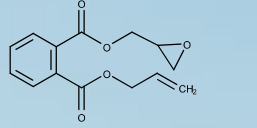
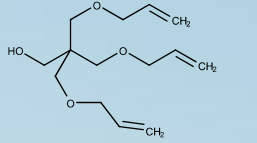
Product	Description	Structure	CAS No	Key Feature – Application	Viscosity [mPa*s]	Flash P. [°C]	Boiling P. [°C]
<b>TEGDVE</b>	Triethyleneglycol Divinyl Ether		765-12-8	Coatings   Inks Adhesives	3,4	136,0	137 (2,5 kPa)
<b>CHMVE</b>	1,4-Cyclohexane Dimethanol Monovinyl Ether		114651-37-5	Coatings   Inks Adhesives	72,7	131,0	111 (3 kPa)
<b>HBVE</b>	4-Hydroxyethyl Vinyl Ether		17832-28-9	Coatings   Inks Adhesives	5,9	80,0	187
<b>HEVE</b>	2-Hydroxy Vinyl Ether		764-48-7	Coatings   Inks Adhesives	2,2	62,0	143
<b>DEGMVE Development</b>	Diethyleneglycol Mono Vinyl Ether		929-37-3	Coatings   Inks Adhesives	5,1	83,0	196



# Dual Cure

# 19

# 19

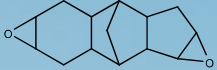
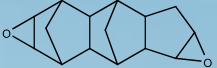

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Temp. [°C]
	<b>4-HBAGE</b> 4-Hydroxybutyl Acrylate Glycidyl Ether		119692-59-0	Glycidyl and Acrylate Group Paint & Coating Adhesives	7,0	- 59
	<b>Oxe-10</b> 3-Ethyl-3-Oxetanylmethyl Methacrylate		41988-14-1	Cationic and Radical Polymerization	4,3	- 5
<b>EA-1010X</b>	Phenol, 4,4'-(1-Methylethylidene) Bis-, Polymer with 2-(Chloromethyl) Oxirane, 2-Propenoate		55818-57-0 <b>Epoxy   Acrylate</b> 25068-38-6 <b>Epoxy</b>	Glycidyl and Acrylate Group	20.000 [at 40 °C]	
	<b>GMA</b> Glycidyl Methacrylate		106-91-2	Glycidyl and Methacrylate Group	2,53	46
<b>NeoAllyl G</b>	<b>AGE</b> Allyl Glycidyl Ether		106-92-3	Crosslinking   Adhesion Promoter	1,2	
<b>NeoAllyl E10</b>	3-Allyloxy-1,2-Propanediol		123-34-2	Drying Agent for Unsaturated Polyester Crosslinking for Urethane Elastomer Hydroxy and Vinyl Ether Functionality	25	
<b>NeoAllyl E-20G</b>	Diallyl Glycidyl Glycerin		51081-62-0	Low Viscosity   Crosslinking Agent Epoxy and Allyl Functionality	4	
<b>NeoAllyl P-30</b>	Penta-Erythritol Triallyl Ether		1471-17-6	Modifier for Acrylate Emulsion Hydroxy and Allyl Functionality		

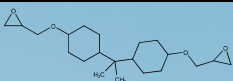
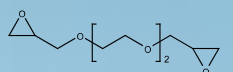
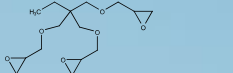
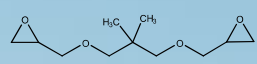
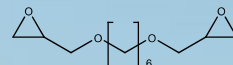
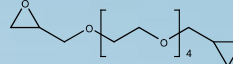
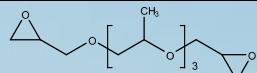
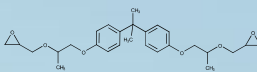
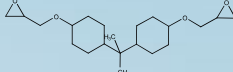
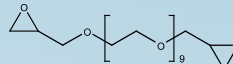
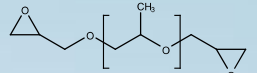
# Epoxy

## 20

# Monomers

## 20

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	EEW [g/eq.]	Chlorine
DE-102	Epochalic are new Alicyclic Epoxy Monomers with High Performance Properties, which excel common Bisphenol A Based Epoxies.		55553-81-6	Low Viscosity High Heat Resistance Low Curing Shrinkage	38 [at 100 °C]	122	<10
DE-103			3777-17-6	Low Viscosity High Heat Resistance Low Curing Shrinkage	12 [at 175 °C]	115	<10
THI-DE			2886-89-7	Low Viscosity High Heat Resistance Low Curing Shrinkage	20	90	<10

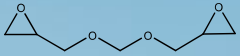
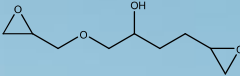
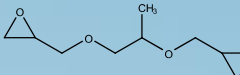
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	EEW [g/eq.]	Flash P. [°C]
DME-100	1,4-Cyclohexane Dimethanol Chloromethyl Oxirane		71463-68-8	Anti-Aging Stable T <sub>g</sub> Good Mechanical Properties	50 - 100	145 - 170	
Epolight 100E	Diethylene Glycol Diglycidyl Ether		30499-70-8	Excellent Viscosity Reducer Hydrophilic	19 - 25	150 - 163	163
Epolight 100MF	Trimethylolpropane Triglycidyl Ether		30499-70-8 108-88-3	Crosslinking Agent	108 - 168	135 - 145	193
Epolight 1500NP	Neopentyl Glycol Diglycidyl Ether		933999-82-7 108-88-3		15 - 25	134 - 160	141
Epolight 1600	1,6-Hexanediol Diglycidyl Ether		933999-82-7 108-88-4	Excellent Viscosity Reducer	15 - 25	140 - 160	163
Epolight 200E	PEG 200 Diglycidyl Ether		72207-80-8	Water Solubility	30-50	178 - 215	198
Epolight 200P	Tripropyleneglycol Diglycidyl Ether		9072-62-2	Good Flexibility	20 - 40	190 - 210	137
Epolight 3002	Diglycidyl Ether of Propyleneoxide modified Bisphenol A		933999-83-8	Good Flexibility	3.500 - 5500	310 - 340	>220
Epolight 4000	Hydrogenized Bisphenol A Diglycidyl Ether		30589-72-3	Low Viscosity Anti-Aging Anti-Ark	1.500 - 3.500	208 - 245	> 220
Epolight 400E	PEG 400 Diglycidyl Ether		72207-80-8	Water Solubility	60 - 110	264 - 290	197
Epolight 400P	PPG 400 Diglycidyl Ether		9072-62-2	Good Flexibility	40 - 60	300 - 330	220

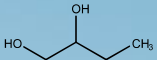
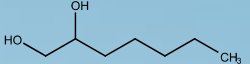
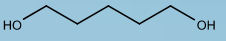
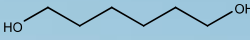
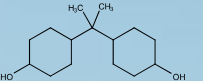
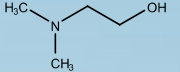
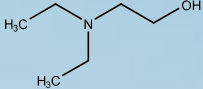
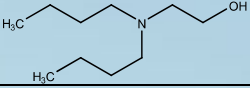
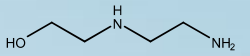
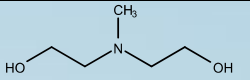
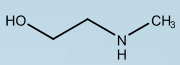
# Epoxy

# 22

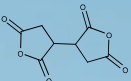
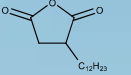
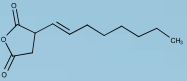

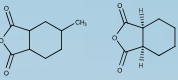
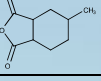
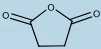
# Glycidyl Ethers

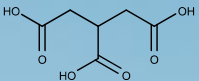
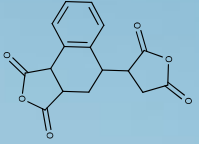

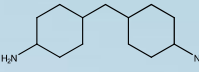
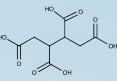
# 22



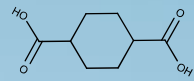
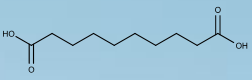
Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	EEW [g/eq.]	Flash P. [°C]
<b>Epilight 40E</b>	Ethylene Glycol Diglycidyl Ether		705265-31-2	Hydrophilic	15 – 35	125 – 140	157
<b>Epilight 80MF</b>	Glycerin Diglycidyl Ether		25038-04-4	Hydrophilic	140 – 170	138 – 160	214
<b>Epilight 70P</b>	Propyleneglycol Diglycidyl Ether		31921-70-7	Excellent Viscosity Reducer	10 – 40	140 – 160	147
<b>Epilight M-1230</b>	Alkyl (C12-C13) Glycidyl Ether	On Request	933999-87-2	Low Toxicity Low Viscosity	5 – 15	295 – 320	149

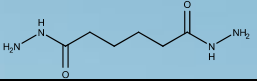
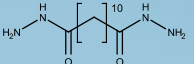


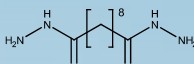
Product	Description	Structure	CAS No	Key Feature - Application	Functionality
	<b>1,2-BD</b> 1,2-Butanediol		584-03-2	Raw Material for Polyester & Poly-Urethane Solvent for Inkjet Ink	Alcohol
	<b>1,2-HD</b> 1,2-Hexanediol		6920-22-5	Raw Material for Polyester & Poly-Urethane	Alcohol
	<b>1,5-PD</b> 1,5-Pentanediol		111-29-5	Raw Material for Polyester & Poly-Urethane	Alcohol
	<b>1,6-HD</b> 1,6-Hexanediol		629-11-8	Raw Material for Polyester & Poly-Urethane	Alcohol
	<b>HBPA</b> Hydroxylated Bisphenol A		80-04-6	Raw Material for Epoxy Resin Curing Agent for Epoxy and Poly-Urethane	Alcohol
<b>2M</b>	N,N-Dimethyl Ethanolamine		108-01-0	Raw Material for Pigments, Cosmetics, Pharmaceuticals etc. Additive for Paint Dispersions	Hydroxy Amine
<b>2A</b>	N,N-Diethyl Ethanolamine		100-37-8	Raw Material for Procaine	Hydroxy Amine
<b>2B</b>	N,N-Di-(n-Butyl) Ethanolamine		102-81-8	Additive   Emulsifier Raw Material	Hydroxy Amine
	<b>EA</b> N-(β-Aminoethyl) Ethanolamine		111-41-1	Additive for Coatings, Tenside, Urethane etc.	Hydroxy Amine
	<b>MDA</b> N-Methyl Diethanolamine		105-59-9	Catalyst for Poly-Urethane Raw Material	Hydroxy Amine
	<b>MMA</b> N-Methyl Ethanolamine		109-83-1	Solubilizer for Pigments   Emulsifier Raw Material	Hydroxy Amine



Product	Description	Structure	CAS No	Key Feature - Application	Functionality
<b>Rikacid BT-100</b>	Meso-Butane-1,2,3,4-Tetracarboxylic Dianhydride		4534-73-0	Raw Material for Poly-Imide Curing Agent for Epoxy Resin	Anhydride
<b>Rikacid DDSA</b>	Dihydro-3-(Tetrapropenyl)-Furan-2,5-Dione		26544-38-7	Raw Material for Poly-Ester Resin & Electrical Insulation Improves Flexibility   Heat Cycle Performance Adhesion & Shock Resistance	Anhydride
<b>Rikacid OSA</b>	Dihydro-3-(Octenyl)-Furan-2,5-Dione		26680-54-6	Improves Heat Flexibility   Heat Cycle Performance Thermal Shock Resistance and Adhesion	Anhydride
<b>Rikacid HF-08</b>	Rikacid HH polymer with $\alpha$ -Hydro $\omega$ - hydroxypoly [oxy(methyl 1,2-ethane diyl)]	On Request	60806-75-9	Epoxy Curing Resin Carboxyl End-Groups High $T_g$ And Impact Strength	Anhydride
<b>Rikacid HH</b>	Cyclohexane-1,2-Dicarboxylic Anhydride		85-42-7	Raw Material for Poly-Ester And Displays Exceptional Weather Resistance	Anhydride
<b>Rikacid MH-700</b>	Hexahydro-4Methylphthalic Anhydride Cyclohexane-1,2-Dicarboxylic Anhydride		19438-60-9 85-42-7	Liquid Alicyclic Acid Anhydride Mixture Main Composition: 4-Methyl HHPA	Anhydride
<b>Rikacid MH-T</b>	Hexahydro-4Methylphthalic Anhydride		19438-60-9	HHPA Derivative Curing Agent for Epoxy Resin Suitable for Optic Electronic Materials	Anhydride
<b>Rikacid MTA-15</b>	Mixture	On Request	19438-60-9 85-42-7 1732-97-4 552-30-7	Exceptional Heat Resistant Both as Liquid & Solid Available	Anhydride
<b>Rikacid SA</b>	Succinic Anhydride		108-30-5	Epoxy Curing Agent Heat Resistant Properties	Anhydride

Product	Description	Structure	CAS No	Key Feature - Application	Functionality
<b>Rikacid TCR-100</b>	1,2,3-Propane Tricarboxylic Acid		99-14-9	Raw Material for Poly-Ester   Poly-Amine   Poly-Urethane Etc. Heat Resistance & Solubility	Anhydride
<b>Rikacid TDA-100</b>	4-(2,5-Dioxo-tetra-Hydrofuran-3-yl)-Tetralin-1,2-Dicarboxylic Anhydride		13912-65-7	High Purity Exceptional Transparency & Heat Resistance	Anhydride
<b>Rikacid TH</b>	1,2,3,6-Tetrahydro Phthalic Anhydride		85-43-8	Raw Material for Poly-Ester & Vinyl Ether Resin Epoxy Curing Agent Improves Electrical Insulation   Heat & Chemical Resistance	Anhydride
<b>Rikacid TMEG-100</b>	1,2,4-Benzene tri-Carboxylic Acid, Ester with 1,2-Ethane Diol 1,2,4-Benzene tri-Carboxylic Anhydride	On Request	71342-70-6 552-30-7	Heat Resistant Insulation	Anhydride
<b>Rikacid TMEG-200</b>	1,2,4-Benzene tri-Carboxylic Acid, Ester with 1,2-Ethane Diol	On Request	71342-70-6 552-30-8	Heat Resistant Insulation	Anhydride
<b>Rikacid TMEG-500</b>	1,2,4-Benzene tri-Carboxylic Acid, Ester with 1,2-Ethane Diol	On Request	71342-70-6 552-30-9	Heat Resistant Insulation   Hardener for Powder Coating Epoxy Resin Improves Flexibility & Adhesion	Anhydride
<b>Rikacid TMEG-600</b>	1,2,4-Benzene tri-Carboxylic Acid, Ester with 1,2-Ethane Diol	On Request	71342-70-6 552-30-10	Heat Resistant Insulation   Hardener for Powder Coating Epoxy Resin Improves Flexibility & Adhesion	Anhydride
<b>Rikacid TMEG-S</b>	Tri-Mellitic Acid; Ester with Ethylene Glycol	On Request	71342-70-6 552-30-7	Heat Resistant Insulation	Anhydride
<b>Rikacid TMTA-C</b>	2-Acetoxypropane-1,3-Diyl bis-(1,3-Dihydro-1,3-Dioxoisobenzofuran 5-Carboxylate)	On Request	1732-97-4 552-30-7	Exceptional Heat Resistant Both as Liquid & Solid Available	Anhydride
<b>Wondamine HM</b>	4,4'-Diamino-Dicyclohexyl Methane		1761-71-3	Raw Material for Di-Iso-Cyanates Epoxy Curing Agent	Amine
<b>Rikacid BT-W</b>	1,2,3,4-Butane-tetra-Carboxylic Acid		1703-58-8	Modifier for Poly-Ester   Poly-Amide   Poly-Urethane Etc. Improves Heat Resistance & Solubility	Carboxylic Acid

Product	Description	Structure	CAS No	Key Feature - Application	Functionality
Rikacid HH-W	Cis-1,2-Cyclohexane Dicarboxylic Acid		610-09-3	Free Acid of HHPA Epoxy Curing Agent	Carboxylic Acid
Rikacid TH-W	Cyclohex-4-en-1,2-Dicarbonsure		88-98-2	Free Acid Of THPA Epoxy Curing Agent	Carboxylic Acid
Rikacid CHDA	1,4-Cyclohexane Dicarboxylic Acid		1076-97-7	Raw Material for Poly-Ester Excellent Transparency Excellent Weather Resistance	Carboxylic Acid
	<b>SA</b> Sebacic Acid		111-20-6	Epoxy Curing Agent Raw Material for Nylon	Carboxylic Acid
FujiCure 1061				Powder Low Curing Temperature (60 °C) High T <sub>g</sub> (>100 °C)	Amine-Based
FujiCure 7001				Liquid Low Curing Temperature (80 °C) High T <sub>g</sub>	Amine-Based
FujiCure 7002				Liquid High Curing Temperature (150 °C) Very High T <sub>g</sub> (>140 °C)	Amine-Based
Fujicure FXR-1020				Powder Low Curing Temperature (80 °C) High T <sub>g</sub> (>100 °C)	Amine-Based
FujiCure FXR-1030				Powder Moderate Curing Temperature (100 °C) High T <sub>g</sub> (>100 °C)	Amine-Based
FujiCure FXR-1061				Powder Low Curing Temperature (60 °C) High T <sub>g</sub> (>100 °C)	Amine-Based
FujiCure FXR-1081				Powder Low Curing Temperature (70 °C) High T <sub>g</sub> (>100 °C)	Amine-Based

Product	Description	Structure	CAS No	Key Feature - Application	Functionality
FujiCure FXR-1121				Powder Low Curing Temperature (80 °C) Very High T <sub>g</sub> (>140 °C)	Amine-Based
	Adipic Dihydrazide		1071-93-8	Latent Hardener in Epoxy Resin for Adhesives and Paints	Hydrazide
	Dodecane Dihydrazide		4080-98-2	Latent Hardener in Epoxy Resin for Adhesives and Paints	Hydrazide
	Isophthalic Dihydrazide		2760-98-7	Latent Hardener in Epoxy Resin for Adhesives and Paints	Hydrazide
	Salicyclic Dihydrazide		936-02-7	Latent Hardener in Epoxy Resin for Adhesives and Paints	Hydrazide
	Sebacid Dihydrazide		925-83-7	Latent Hardener in Epoxy Resin for Adhesives and Paints	Hydrazide

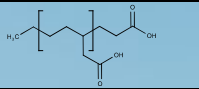
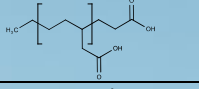
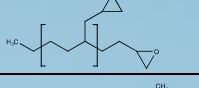
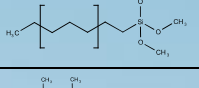
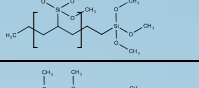
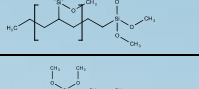
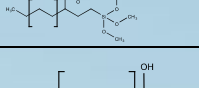
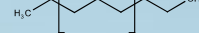
Product	Description	Structure	CAS No	Key Feature - Application	Functionality
DPMP	Dipenta-Erythritol Hexakis-(3-Mercaptopropionate)		25359-71-1	High Reactivity   Improved Adhesion Crosslinking Agent	Thiole
EGMP-4	Tetra-Ethylenglycol Bis-(3-Mercaptopropionate)		6889-92-9	High Reactivity   Improved Adhesion Crosslinking Agent	Thiole
PEMP	Penta-Erythritol Tetrakis-(3-Mercaptopropionate)		7575-23-7	High Reactivity   Improved Adhesion Crosslinking Agent	Thiole
PEMP-LV	Penta-Erythritol Tetrakis-(3-Mercaptopropionate)		7575-23-7	Low Odor Grade of PEMP	Thiole
PEPT	Penta-Erythritol Trispropane Thiol		1966153-30-9	Ester-free High Flexibility   Water Resistance Rapid Curing   Low Temp. Curing   High Adhesion	Thiole
TEMPIC	Tris-[(3-Mercapto Propionyloxy)-Ethyl]-Iso-Cyanurate		36196-44-8	High Reactivity   Improved Adhesion & Flexibility Crosslinking Agent	Thiole
TMMP	Trimethylolpropane Tris-(3-Mercapto pPropionate)		33007-83-9	High Reactivity   Improved Adhesion & Flexibility Crosslinking Agent	Thiole
TMMP-LV	Tri-Methylolpropane Tris-(3-Mercapto Propionate)		33007-83-9	Low Odor Grade of TMMP	Thiole

# Polymer & Resin

# 29

# Non-Solv. Acrylic R.

# 29

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Amount of funct. Groups	MW [g/mol]
CB-3098	Carboxylic Acid-Functionality Poly-(2-EHA) Backbone				15.000 – 20.000	AV = 98 ± 1	3.000
CBB-3098	Carboxylic Acid-Functionality Poly-(BA) Backbone				20.000 – 30.000	AV = 98 ± 1	3.000
GB-1	Non-Solvent Acrylic resin   Poly(BA)-Backbone   Multifunctional Glycidyl ether				50.000 – 80.000	Epoxy = 6	16.000
NE-1000	Monofunctional Alkoxysilyl Poly-(BA) Backbone				1.000 – 1.500	Silyl = 7 ± 1	3.000
NE-3000	Multifunctional Alkoxysilyl Poly-(MMA) Backbone				1.500 – 2.500	Silyl = 9 ± 1	5.000
NE-4000	Multifunctional Alkoxysilyl Poly-(2-EHA) Backbone				60.000 – 100.000	Silyl = 6	20.000
NE-4001	Multifunctional Alkoxysilyl Poly-(2-EHA) Backbone				25.000 – 55.000	Silyl = 2	20.000
UT-1001	Difunctional Hydroxy Poly-(2-EHA) Backbone				3.500	OHV = 58 ± 3	3.500

# Polymer & Resin

# 30

# Urethane Acrylic R.

# 30

Product	Key Feature	Type of Resin	Elongation [%]	Tensile strength [kg*f /cm <sup>2</sup> ]	Viscosity [mPa*s]	Number of funct. Groups
U-200PA	Good Balance of Elongation and Tensile Strength Hydrophilic	Urethane-Acrylate	170	100	60.000*	2
UA-W2	Methacryloyl Group   Hydrophilic	Urethane-Acrylate	180	24	30.000**	2
UA-W2A	Hydrophilic	Urethane-Acrylate	140	16	40.000**	2
UA-122P	High Tensile Strength Contains 20 % of AMP-20GY	Urethane-Acrylate	50	220	45.000*	2
UA-160TM	Flexible after Curing	Urethane-Acrylate	85	80	25.000*	2
UA-2235PE	Hydrophilic   Lipophilic Contains 20 % of PG-700	Urethane-Acrylate	50	30	16.000**	2
UA-4200	Lipophilic	Urethane-Acrylate	30	20	2.000**	2
UA-4400	Lipophilic	Urethane-Acrylate	30	30	3.000**	2
UA-7000	Hydrophilic	Urethane-Acrylate	20	30	3.000**	2
UA-31F	Crystalline	Urethane-Acrylate			50.000**	3
UA-7100	Hydrophilic	Urethane-Acrylate	30	40	15.000**	3

\* at 40 °C  
\*\*at 25 °C



# Polymer & Resin

# 31

# Urethane Acrylate R.

# 31

Product	Key Feature	Type of Resin	Appearance	Viscosity [mPa*s]	Number of funct. Groups
U-2HA	Low Molecular Weight   Crystalline	Urethane-Acrylate	Light-Yellow Viscous		2
U-2PPA	Low Molecular Weight   High Crosslinking Density	Urethane-Acrylate	Light-Yellow Viscous	40.000 (50°C)	2
U-6LPA	High Crosslinking Density	Urethane-Acrylate	Light-Yellow Viscous	500.000**	6
U-10PA	Grade with Hardness to break	Urethane-Acrylate	Light-Yellow Viscous	15.000*	10
U-10HA	Grade with Hardness to break	Urethane-Acrylate	Light-Yellow Viscous	50.000**	10
UA-33H	High Crosslinking Density	Urethane-Acrylate	Light-Yellow Viscous	50.000*	9
UA-53H	Many Functional Groups   High Crosslinking Density	Urethane-Acrylate	Light-Yellow Viscous	45.000*	15
UA-32P	Rigid skeleton   Contamination   Low Curing Shrinkage	Urethane-Acrylate	Light-Yellow Viscous	10.000**	3
UA-1100H	A-TMMT contained   Low Viscosity High Crosslinking Density	Urethane-Acrylate	Light-Yellow Viscous	15.000**	6

\* at 40 °C

\*\*at 25 °C

# Polymer & Resin

# 32

# Epoxy Acrylate R.

# 32

Product	Key Feature	Type of Resin	APHA	Acid Value [mgKOH/g]	Viscosity [mPa*s]	Number of funct. groups
EA-1010N	Solventless   Thermal Curable	Epoxy-Acrylate	30	400	20.000*	1 – 2
EA-1010LC	Solventless   Low Chlorine	Epoxy-Acrylate	30	400	10.000*	1 – 2
EA-1010NT	Solventless   Low Chlorine	Epoxy-Acrylate	>500	400	50.000*	1 – 2
EA-1020	Solventless   Flexible	Epoxy-Acrylate	20	500	80.000*	2
EA-1020LC3	Solventless   Low Chlorine	Epoxy-Acrylate	10	500	80.000*	2
EA-6320 PGMAC	Phenol Novolac Backbone   Contains 20 % of PGMAC	Epoxy-Acrylate	>500	1250	35.000**	5 – 6
EA-7120 PGMAC	Phenol Novolac Backbone   Contains 30 % of PGMAC	Epoxy-Acrylate	>500	1650	13.000**	5 – 6
EA-7420 PGMAC	Phenol Novolac Backbone   Contains 30 % of PGMAC	Epoxy-Acrylate	>500	1250	14.000**	5 – 6
EMA-1020	Solventless   Methacrylate   Flexible   Transparent	Epoxy-Acrylate	>500	1650	55.000**	5 – 6

\* at 40 °C

\*\*at 25 °C

# Polymer & Resin

# 33

# Epoxy R.

# 33

Product	Key Feature - Application	Epoxy Equivalent [g/eq]	APHA	Hydrolyzable Chlorine [%]	Viscosity [mPa*s]
<b>Bisphenol A Epoxy Resin</b>	Liquid   Specific Products on Request	178 - 244	1 - 90	0,05 - 1.95	800 - 25.000
<b>Bisphenol A Epoxy Resin</b>	Semi-Solid   Specific Products on Request	230 - 260	1 - 40	0,01 - 0,5	
<b>Bisphenol A Epoxy Resin</b>	Solid   Specific Products on Request	286 - 2.900	1 - 2	0,05 - 0,5	
<b>Epoxy Resin Solvent based</b>	Specific Products on Request	184 - 530		<0,05 - 0,1	500 - 30.000
<b>Fire-Retardant Brominated Epoxy Resin</b>	Specific Products on Request	380 - 630			500 - 5.000
<b>Heat Resistant Epoxy Phenol</b>	Heat and Acid Resistance   Anti-Corrosive Good Adhesion   Specific Products on Request				

\* at 40 °C  
\*\*at 25 °C

# Polymer & Resin

# 34

# Hydrocarbon R.

# 34

Product	Description	Key Feature - Application
<b>T-REZ H-Series</b>	Hydrogenated Alicyclic and Aromatic Hydrocarbon Resin Via Polymerization of DCPD/Aromatic Monomer	Hotmelts   Adhesives   Rubber Goods Heat Stability   Weathering Resistance   Low Odor Compatible with Base Polymers such as SIS, SBS, SBR, SEBS, EVA etc.
<b>T-REZ R-Series</b>	Hydrogenated Alicyclic and Aromatic Hydrocarbon Resin Via Polymerization of C5/Aromatic Monomer	
<b>T-REZ Premium Series</b>	Hydrogenated Alicyclic and Aromatic Hydrocarbon Resin Via Polymerization Of DCPD/Aromatic Monomer for Specific Quality Requirements	
<b>Neopolymer</b>	Hydrogenated Alicyclic and Aromatic Hydrocarbon Resin Via Polymerization of Aromatic C9 Monomer	Paint   Inks   Adhesives   Rubbers Good Solubility   Good Compatibility
<b>Neopolymer Premium</b>	Modified Aromatic Hydrocarbon Resins with Unique Characteristics	Paint   Inks   Adhesives   Rubbers   Hotmelts High Compatibility

# Polymer & Resin

# 35

# Alkox-Series

# 35

Product	Description	Cas No.	Application	Molecular Weight [g/mol]	Viscosity of aq. Solution [mPa*s]*
E-30 E-20G	Alkox Resins are High Molecular Weight Poly-(Ethylene oxide) with a melting point of 65 – 67 °C. They can be molded and are completely soluble in water.	25322-68-3	Ceramics   Construction Cosmetics   Electricity Ink and Paints   Resins	300 - 500	40 - 100
E-45 E-45G				600 – 1.000	300 - 600
E-60 E60G				1.000 – 1.500	2.000 – 4.000
E-75 E-75G				Ca. 2.000	40 - 70
E-100				Ca. 3.000	90 - 105
E-160 E-160G				Ca. 4.000	150 - 170
E-240				Ca. 5.000	200 - 250
E-300 E-300G				Ca. 7.000	300 - 360
L-11				110	230 - 500
R-1000 R-1000G				250 - 400	2.000 – 4.000
CP-A Series	Random Copolymer of Ethylene Oxide, Propylene Oxide & Allyl Glycidyl Ether	75-21-8   75-56-9 Methyl: 106-92-3	Resin Modifier Coating Additive	Ca. 60.000	500 – 3.000
CP-B Series	Random Copolymer of Ethylene Oxide, Propylene Oxide & Phenyl Glycidyl Ether	75-21-8   75-56-9 122-60-1	Resin Modifier	Ca. 100.000	200 – 1.500 300 – 2.000

\* at 25 °C

# Polymer & Resin

## 36

# Polyols

## 36

Product	Key Feature	Molecular Weight [g/mol]	Application	KOH [mg/g <sup>9</sup> ]	Viscosity [mPa*s]
HS2H-XXXXS	Sebacic Acid based Polyol   Polymerization of HD and SA   Polymerization of NPG, HD, SA and IPA	2.000 – 10.000	Water Soluble Urethane   Hotmelts Synthetic Leather   Adhesive   Ink Binder	11 - 56	500 – 54.000
HS2H-XXAP HS2H-XXXXA HS2H-XXXT	Polyester Polyol based on AA   DEG   EG   HD   IPA   NPG   PA and TPA	1.000 – 5.500	Water Soluble Urethane   Hotmelts Synthetic Leather   Adhesive   Ink Binder	20 - 112	500 – 125.000
HS2N-XXXXA HS2N-XXXXP HS2N-XXXXS	Polyester Polyol based on AA   iND   PA and SA	2.000 and 5.200	Water Soluble Urethane   Hotmelts Ink Binder   Adhesive	22 and 56	5.500 – 18.000
HT-XXX	Polyester Polyol based on AA and 1,4-BD	1.000 – 2.500	Water Soluble Urethane   Hotmelts Synthetic Leather   Ink Binder	45 - 112	200 – 1.200

AA = Adipic acid | EG = Ethylene Glycol | HD = 1,6-Hexanediol | iND = 2,4-Diethyl 1,5-Pentanediol  
IPA = Iso-propanol | NPG = Neopentyl Glycol | SA = Sebacic Acid | TPA = tere-Phthalic acid

# Polymer & Resin

# 37

# Silicone R.

# 37

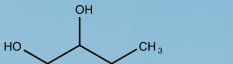
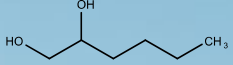

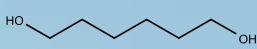
Product	Key Feature	Application	Solvent	Viscosity [mPa*s]
<b>Methyl Phenyl Silicone Resin</b>	High Temperature Resistance   Electrical Insulation Moisture Proof	High Temperature Resistant Coatings.	Toluene   Xylene   Xylene Butyl Acetate	20 - 60
<b>Epoxy Modified Silicone Resin</b>	Anti-Corrosion   Good Adhesion   Heat and Oil Resistance Moisture Proof	High Temperature and Weather Resistant Coatings Anti-corrosive Coatings	Butanol   Toluene Xylene	20 - 100
<b>Acrylic modified Silicone Resin</b>	Temperature Resistance   Good Hardness Electrical Insulation	Hight Temperature resistant Coatings	Xylene	20 - 160
<b>Alkyd modified Silicone Resin</b>	Temperature Resistance   Good Hardness Electrical Insulation	Hight Temperature resistant Coatings	Xylene	25 - 50
<b>Polyester modified Silicone Resin</b>	Temperature Resistance   Moisture Resistance Good Film Builds	Non-Stick Coatings   Special Coatings	Butanol  CAC   PMA Xylene	90 - 750

# SAP

Product	Description	Key Feature	Application
<b>Sanfresh ST-250</b>	SAP stands for Super Absorbent Polymer. It can absorb liquids up to several hundred times of its own Weight.	High Rention	Agriculture   Construction   Cosmetics   Water Treatment
<b>Sanfresh ST-500D</b>		High Absorption under Load	

# Urethan

## 38

Product	Description	Structure	CAS No	Key Feature - Application	Boiling Point [°C]
	<b>1,2-BD</b> 1,2-Butanediol		584-03-2	Raw Material for Polyester & Poly-Urethane Solvent for Inkjet Ink	193
	<b>1,2-HD</b> 1,2-Hexanediol		6920-22-5	Raw Material for Polyester & Poly-Urethane	223 - 224
	<b>1,5-PD</b> 1,5-Pentanediol		111-29-5	Raw Material for Polyester & Poly-Urethane	242
	<b>1,6-HD</b> 1,6-Hexanediol		629-11-8	Raw Material for Polyester & Poly-Urethane	250

# Alkane-diols

## 38

## Blocked Iso-Cyanates

Product	Description	CAS No	Key Feature	Disassociation Temp. °C]	Solid Content	NCO-Content
<b>Meikanate TP-10</b>	TDI based blocked Iso-Cyanate		Temperature Controlled Polymerisation	120 - 160	44 %	8,4 % in solid parts
<b>SU-268A</b>	HDI based blocked Iso-Cyanate		Temperature Controlled Polymerisation	100 – 130	30 %	14,66 % in solid Parts
<b>SU-315V</b>	HDI based blocked Iso-Cyanate		Temperature Controlled Polymerisation	90 – 110	55 %	11,64 % in solid parts



# Construction

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39

39

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## Construction

- 40 Intermediate
- 40 Plasticizer
- 40 Raw Material

# Construction

40

40

Product	Key Feature - Application	Cas No.
<b>Alkox (Poly Ethylene Oxide)</b>	Fluidizer for Concrete Viscosity Modifier	25322-68-3
<b>Magnesium Diacrylate 35</b>	Resin Modifier for Water-Stopping   Proofing Agent	5698-98-6
<b>Methoxy Polyethylene Glycol 400 Acrylate</b>	Chemical Intermediates   Raw Material of Methacrylate Binders	32171-39-4
<b>Methoxy Polyethylene Glycol 400 Methacrylate</b>	Chemical Intermediates   Raw Material of Methacrylate Binders	26915-72-0
<b>Polyethylene Glycol Mono Methallylether</b>	A Basic Raw Material for High Range Water Reducing Admixtures Polycarboxylate Based Superplasticizers	9004-74-4
<b>Sodium Lauryl Sulfate</b>	Emulsifier for Emulsion Polymerization and the Dye Dispersant.	151-21-3
<b>Sodium Methallyl Sulfonate</b>	Third Monomer in the Process of Wet Polyacrylonitrile in Water Treatment and Paint Additive Industries.	1561-92-8
<b>Thioglycerol</b>	Chain Transfer Agents of Polycarboxylates Superplasticizer for Concrete	96-27-5
<b>Thioglycolic Acid</b>	Chain Transfer Agents of Polycarboxylates Superplasticizer for Concrete	68-11-1
<b>Thiomalic Acid</b>	Chain Transfer Agents of Polycarboxylates Superplasticizer for Concrete	70-49-5
<b>Tresylated Polyethylene Glycol</b>	A Basic Raw Material for High Range Water Reducing Admixtures Polycarboxylate Based Superplasticizers	2601-60-9
<b>β-Mercapto propionic Acid</b>	Chain Transfer Agents of Polycarboxylates Superplasticizer for Concrete   80 % aq. Solution available	107-96-0

# Other Specialties

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**Additives**

**46**

**Phosphates**

**57**

**Raw Material**

**42**

**Activated Carbon**

**43**

**Acrylamide**

**52**

**Particles**

**58**

**Zeomic**

# Other Specialties

# 42

# Activated Carbon

# 42

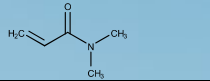
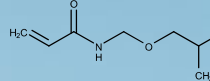
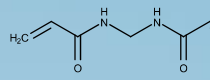
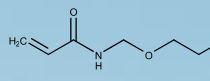
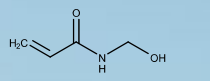
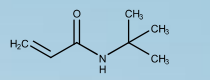
Application	Description [Cas No.]	Mesh Size [ASTM]	Butane Activity [ASTM]	CTC Activity [ASTM]	Iodine Adsorption [mg/g]	Surface Area [m <sup>2</sup> /g]
Gold Recovery	Coconut Based	6 x 12	2-24			
	Coconut Based	8 x 16				
Air & Gas Treatment	Coconut Based	4 x 8		55 – 100 %		
	Coconut Based	1.5 mm pelletized		100 -140 %		
	Coal Based	4 x 8		50 – 60 %		
	Coal Based	4 - 7 mm pelletized		50 – 60 %		
Water Treatment & Water Filter	Coconut Based	8 x 30   12 x 30   20 x 50			1.000 – 1.200	
	Coconut Based	35 x 80   80 x 200   80 x 325			1.000 – 1.200	
	Coal Based	8 x 30   12 x 30   20 x 50			900 – 1.050	
	Pitch Based	10 – 20 µm			2.000 - 3.000	
Catalyst	Coconut Based	4 x 8		55 - 65 %		
	Coconut Based	3 – 4 mm pelletized		70 – 80%		
	Wood Based	>200				1.200
Super Capacitor	Pitch Based	60 – 100 µm				2.000 - 3.000
	Resin Based	8 – 12 µm				2.000 – 3.000

# Other Specialties

# 43

# Acrylamides

# 43



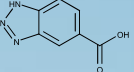

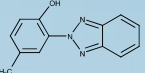
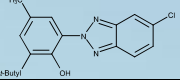
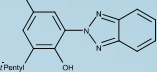
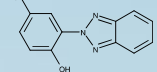
Product	Description	Structure	CAS No	Key Feature - Application	Appearance
	<b>DMAA</b> N,N Dimethyl Acrylamide		268-03-7	Adhesive for Glass & Metal Surfaces Copolymer	Clear & colorless Liquid
	<b>IBMA</b> N-Iso-Butoxymethyl Acrylamide		16669-59-3	Crosslinking Agent Adhesives & Paint	Clear, almost colorless liquid
	<b>MBAA</b> N,N-Methylenebis Acrylamide		110-26-9	Crosslinking Agent	White Powder
	<b>NBMA</b> N-Butoxymethyl Acrylamide		1852-16-0	Crosslinking Agent Adhesives & Paint	Clear, almost colorless liquid
	<b>NMAA</b> N-Methylol Acrylamide		924-42-5	Crosslinking Agent Adhesives & Paint	Clear, almost colorless liquid
	<b>TBAA</b> N-tert-Butyl Acrylamide		107-58-4	Hair Care	White Powder

# Other Specialties

# 44

# Additives

# 44

Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
<b>Blended Foaming Agent</b>	Different Grades with Different Technical Functions						
<b>BT-120</b>	1,2,3-Benzotriazole		95-14-7		Ethanol	194	93
<b>BT-LX</b>	1-[N,N-Bis-(2-Ethylhexyl)-Aminomethyl]-Benzotriazole		80301-64-0		N-Hexane Toluene Ethanol	182	
<b>CBT-1</b>	Carboxy-Benzotriazole		60932-58-3		Ethanol	280 (Degradation)	
<b>JAST-500</b>	6-(2-Benzotriazolyl)-4-Tert-Octyl-6'-Tert-Butyl-4'-Methyl-2,2'-Methylenebisphenol	On Request	209324-18-5		Toluene		148
<b>JCL-400</b>	1,2,3-Benzotriazole Sodium Salt Aqueous Solution		15217-42-2		Ethanol Water		
<b>JF-77</b>	2-(2'-Hydroxy-5'-Methylphenyl)-Benzotriazole		2440-22-4		DP* Toluene		126 - 132
<b>JF-79</b>	2-(2'-Hydroxy-3'-Tert-Butyl-5-Methylphenyl)-5-Chlorobenzotriazole		3896-11-5		Toluene		137 - 141
<b>JF-80</b>	2-(2'-Hydroxy-3',5'-Di-Tert-Amylophenyl)-Benzotriazole		25973-55-1		Toluene		78 - 83
<b>JF-83</b>	2-(2'-Hydroxy-5'-Tert-Octylphenyl)-Benzotriazole		3147-75-9		DP Ethanol Ethanol		102 - 106
<b>JF-832</b>	2,2'-Methylene-Bis-[6-(2H-Benzotriazole-2-Yl)-4-T-Octylphenol]	On Request	103597-45-1		Toluene		196 - 199

\*Diocetyl Phthalate

# Other Specialties

## 45

# Additives

## 45


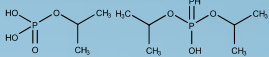
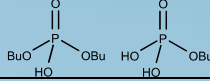


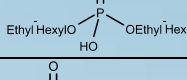


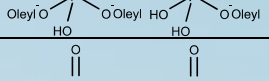
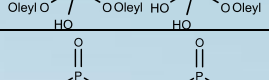
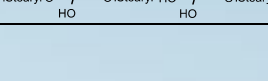
Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
JF-90	Bis-(2,2,6,6-tetramethyl-4-piperidyl)-Sebacate	On Request	52829-07-9		n-Hexane Ethanol Toluene		85
JF-95	Bis-(1,2,2,6,6-Pentamethyl-4-piperidyl)-Sebacate		41556-26-7		n-Hexane Ethanol Toluene		
TT-LX	1-[N,N-Bis-(2-Ethylhexyl)-aminomethyl]-Methylbenzotriazole		80584-90-3 (4-Methyl): 80595-74-0		n-Hexane Toluene Ethanol	190	
TT-LYK	2,2'-[[[(Methyl-1H-benzotriazol-1-yl)-methyl]-imino]-bis-Ethanol		88477-37-6		Ethanol Water		
Unifoam AZ	Foaming Agent			Good Dispersibility   Decomposition Control High Gas Volume			
Unifoam AZ P	Inorganic Foaming Agent			Alternative to organic foaming Agents Endothermic Decomposition Low Odor & Discoloration			
Unifoam AZ Ultra	Foaming Agent			Superior Dispersibility   Decomposition Control High Gas Volume   Dust Prevention			

# Other Specialties

# 46

# Phosphates

# 46

Product	Description	Structure	CAS No	Key Feature - Application	Viscosity [mPa*s]	Glass Transition	Melting Point
Phoslex A-1	Methyl Acid Phosphate		12789-45-6				
Phoslex A-3	Iso-propyl Acid Phosphate		52933-00-3				
Phoslex A-4	Butyl Acid Phosphate		107-66 4 (Diester) 1623-15-0 (Monoester)				
Phoslex A-8N	n-Octyl Acid Phosphate		68307-94-8				
Phoslex A-8	2-Ethylhexyl Acid Phosphate		12645-31-7				
Phoslex A-208	Di-2-Ethylhexyl Acid Phosphate		298-07-7				
Phoslex A-12	Lauryl Acid Phosphate		12751-23-4				
Phoslex A-13	Iso-Tridecyl Acid Phosphate		52933-07-0				
Phosphate A-18C	Oleyl Acid Phosphate		68610-15-1				
Phoslex A-18D	Oleyl Acid Phosphate		37310-83-1				
Phoslex A-18F	Iso-Stearyl Acid Phosphate		39471-52-8				

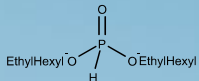
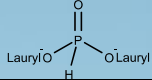
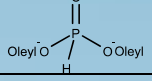
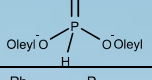
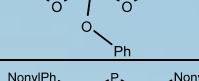
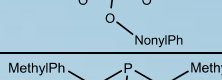
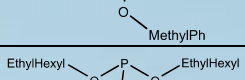
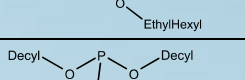
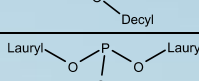
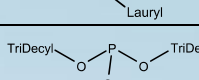
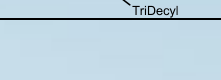


# Other Specialties

# 47

# Phosphates

# 47

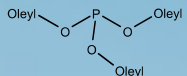
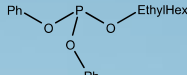
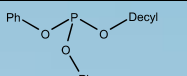
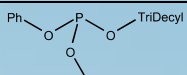
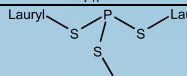
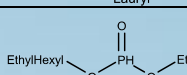
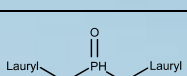
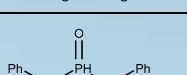
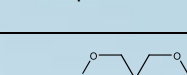
Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
<b>Chelex H-8</b>	Di-2-Ethylhexyl Hydrogen Phosphite		3658-48-8				
<b>Chelex H-12</b>	Dilauryl Hydrogen Phosphite		21302-09-0				
<b>Chelex H-18TA</b>	Dioleyl Hydrogen Phosphite		64051-29-2				
<b>Chelex H-18D</b>	Dioleyl Hydrogen Phosphite		64051-29-2				
<b>JP-360</b>	Triphenyl Phosphite		101-02-0	Antioxidant Reduce Deterioration & Discoloration	Toluene Ethanol	207	21
<b>JP-351</b>	Tris-Nonylphenyl Phosphite		26523-78-4	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	193	N/A
<b>JP-3Cp</b>	Tris-( <i>p</i> -Cresyl) Phosphite		25586-42-9	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	217	<- 10
<b>JP-308E</b>	Tris-(2-Ethylhexyl) Phosphite		301-13-3	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	199	
<b>JP-310</b>	Tri-Decyl Phosphite		25448-25-3	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	218	
<b>JP-312L</b>	Tri-Lauryl Phosphite		3076-63-9	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	232	
<b>JP-333E</b>	Tris-(Tri-Decyl) Phosphite		77745-66-5	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	215	

# Other Specialties

# 48

# Phosphates

# 48


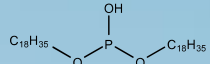
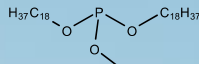

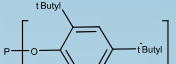
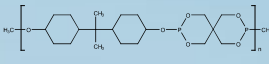
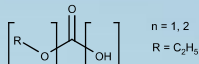
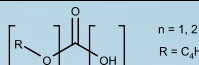
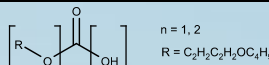
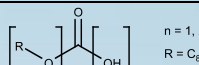
Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
JP-3180	Tri-Oleyl Phosphite		13023-13-7	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	229	
JMP-308	Di-Phenyl Mono-(2-Ethylhexyl) Phosphite		1241-94-7	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	206	
JMP-311	Di-Phenyl Mono Decyl Phosphite		26544-23-0	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	223	
JMP-313	Di-Phenyl Mono (Tri-Decyl) Phosphite		60628-17-3	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	219	
JPS-312	Tri-Lauryl Tri-Thio Phosphite		1656-63-9	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	209	23
JPE-208	Bis-(2-Ethylhexyl) Hydrogen Phosphite		3658-48-8	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	168	
JP-212	Di-Lauryl Hydrogen Phosphite		21302-09-0	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	157	
JP-260	Di-Phenyl Hydrogen Phosphite		4712-55-4	Antioxidant Reduce Deterioration & Discoloration	Ethanol Toluene	186	
JPP-100	Tetra-Phenyl Di-Propyleneglycol Di-Phosphite	On Request	80584-85-6	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	216	
JA-805	Tetra-(C12-C15 Alkyl)-4,4'-Iso-Propylidene Di-Phenyl Di-Phosphite	On Request	96152-48-6	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Toluene		
JPE-10	Bis-(Decyl)-Penta-Erythritol Di-Phosphite		26544-27-4	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	212	

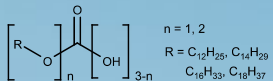
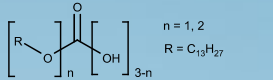
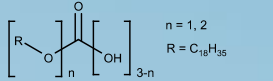
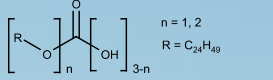
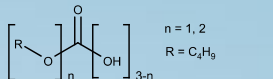
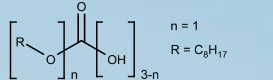
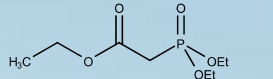
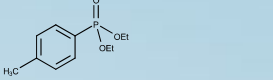
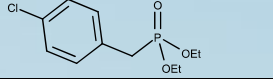
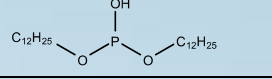
# Other Specialties

# 49

# Phosphates

# 49

Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
JPP-88	Bis-(Tridecyl) Pentaerythritol Diphosphite Bis-(Nonylphenyl) Pentaerythritol Diphosphite	Mixture	69439-68-5 64012-42-6	Antioxidant Reduce Deterioration & Discoloration	n-Hexan Toluene Ethanol	204	
JPE-13R	Bis (Tridecyl) Pentaerythritol Diphosphite		69439-68-5	Antioxidant Reduce Deterioration & Discoloration	n-Hexan Toluene Ethanol	172	
JP-218-OR	Dioleyl Hydrogen Phosphite		64051-29-2	Antioxidant Reduce Deterioration & Discoloration	n-Hexan Toluene Ethanol	236	
JP-318E	Tri-Stearyl Phosphite		2082-80-6	Antioxidant Reduce Deterioration & Discoloration		183	42
JPP-2000PT	Di-Stearyl Penta-Erythritol Di-Phosphite		3806-34-6	Antioxidant Reduce Deterioration & Discoloration	Toluene	≥42	
JP-650	Tris-(2,4-Di-tert-Butyl Phenyl) Phosphite		31570-04-4	Antioxidant Reduce Deterioration & Discoloration	Toluene	249	185
JPH-3800	Hydrogenated Bisphenol A Penta-Erythritol Phosphite Polymer		101320-77-8	Antioxidant Reduce Deterioration & Discoloration		202	≥90
JP-502	Ethyl Acid Phosphate		598-02-7	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	Ethanol Water	134	
JP-504	Butyl Acid Phosphate		107-66-4	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	Toluene Ethanol Water	180	
JP-506H	Butoxyethyl Acid Phosphate		39454-62-1	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexan Toluene EtOH   Water	156	
JP-508	2-Ethylhexyl Acid Phosphate		12645-31-7	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexan Ethanol Toluene	142	

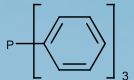
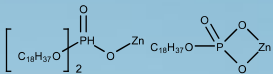
Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
JP-512	Alkyl (C <sub>12</sub> ; C <sub>14</sub> ; C <sub>16</sub> ,C <sub>18</sub> ) Acid Phosphate			Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	197	45
JP-513	Iso-Tridecyl Acid Phosphate		52933-07-0	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	188	
JP-518-0	Oleyl Acid Phosphate		37310-83-1	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	218	
JP-524R	Tetra-Cocyl Acid Phosphate		100683-84-9 100683-85-0	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	Toluene Ethanol	222	
EGAP	Ethyleneglycol Acid Phosphate	On Request	52012-13-2	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	Ethanol Water	145	
DBP	Dibutyl Phosphate		107-66-4	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	196	
LB-58	Bis-(2-Ethylhexyl) Phosphate		298-07-7	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	108	
JC-224	Ethyl Diethyl Phosphono Acetate		867-13-0	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Toluene EtOH   Water	165	
JC-228	Diethyl Benzyl Phosphonate		1080-32-6	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene		
CBPDE	Diethyl (p-Chlorobenzyl) Phosphonate		39225-17-7	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent	n-Hexane Ethanol Toluene	218	
JP-213-D	Dilauryl Hydrogen Phosphite		21302-09-0	Antioxidant Reduce Deterioration & Discoloration	n-Hexane Ethanol Toluene	156	

# Other Specialties

## 51

# Phosphates

## 51

Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Flash P. [°C]	Melting P. [°C]
JC-263	Tri-Phenyl Phosphine		603-35-0		n-Hexane Toluene	187	81
JP-518Zn	Zinc Stearyl Phosphate		16700-97-3 4615-31-0	Extreme Pressure Agent Corrosion Inhibitor Dispersion Agent			≥150

# Other Specialties

# 52

# Particles-ChemiSnow

# 52

Product	Description	Application	Key Feature	Crosslinking Density	Avg. Size [ $\mu\text{m}$ ]
<b>MX - Series</b>	<b>Chemisnow</b> are fine Particles manufactured by spheroidizing Acryl and Styrene Monomer. Control of Crosslinking Density as well as functional Groups leads to unique properties.	Cosmetics Films Paints Ceramic Agents	Light Diffusion   Anti-Glare Anti-Blocking for Films   Improved Film Smoothness Narrow Size Distribution Decomp. Temp. = 250 - 270°C   Heat & Solvent Resistance	Standard to High	0,8 - 30
<b>MZ - Series</b>		Cosmetics Films Paints Ceramic Agents	Light Diffusion   Anti-Glare Anti-Blocking for Films   Improved Film Smoothness Narrow Size Distribution Decomp. Temp. = 230 – 260 °C   Heat & Solvent Resistance	Ultra High	5 - 30
<b>MR - Series</b>		Cosmetics Films Paints Ceramics Agent	Light Diffusion   Anti-Glare Anti-Blocking for Films   Improved Film Smoothness Narrow Size Distribution Decomp. Temp. = 270 – 290 °C   Heat & Solvent Resistance	Standard to High	1 - 10
<b>MP - Series</b>		Cosmetics   Films Paints & Inks   Toner Ceramic Agents	Light Diffusion   Anti-Glare Anti-Blocking for Films   Improved Film Smoothness Narrow Size Distribution   Heat & Solvent Resistance		0,15 – 0,4

# Other Specialties

# 53

# Particles-ChemiSnow

# 53

Product	Description	Application	Key Feature - Application	Crosslinking Density	Avg. Size [ $\mu\text{m}$ ]
KMR - Series KSR - Series	<b>Chemisnow</b> are fine Particles manufactured by spheroidizing Acryl and Styrene Monomer. Control of Crosslinking Density as well as functional Groups leads to unique properties.	Cosmetics Films Paints	Excellent Heat Resistance Excellent Solvent Resistance Decomp. Temp. = 280 – 300 °C	Standard to Ultra High	3
SX - Series		Cosmetics Films Paints	Light Diffusion Anti-Glare Narrow Size Distribution Decomp. Temp. = 260 – 300 °C	Standard	1,5 - 5
SGP - Series		BMC SMC	Light Diffusion Anti-Glare Wide Size Distribution Heat and Solvent Resistance	Low to Standard	20 - 55

# Other Specialties

# 54

# Particles-BaSO<sub>4</sub>

# 54

Product	Description - Application	Key Feature - Application	BaSO <sub>4</sub> [%]	Avg. Size [µm]	pH <small>*(ambient Temp. Method)</small>
<b>Barifine BF - Series</b>	<p>Main Application: Coatings for Automobiles &amp; Consumer Electrical Appliances</p> <p>Particle Size: 0,01 – 0,1 µm</p> <p>Improved Colouring of organic Pigments</p> <p>Improved Gloss of Coating Films</p> <p>Excellent Transparency</p> <p>Improved Orientation of Peal Pigments and Aluminium Flakes</p>	<p>Smallest to Largest Particles</p> <p>Wide Resin Compatibility</p> <p>Affinity to Water-Borne Resin</p>	92 - 96	0,01 - 0,1	9,7 - 8,3*
<b>Bariace B - Series</b>	<p>Main Application: Coatings &amp;Inks   Plastics</p> <p>Excellent Dispersibility</p> <p>Unique Grades for Specific Properties</p> <p>High Degree of Whiteness</p> <p>Low Volatility</p>	<p>Improved Resin Affinity</p> <p>Si - Al Surface Treatment</p> <p>Lower Zeta to Higher Potential than Standard B-Grade</p> <p>Improved Dispersibility compared Standard B-Grade</p>	94 - 98	0,3 – 0,7	8,0 - 6,0*
<b>Precipitated Barium Sulfate Series</b>	<p>Main Application: Coatings and Inks</p> <p>Standard Grade</p>	<p>Standard Grade of Precipitated Baso<sub>4</sub></p> <p>Control of Dispersibility   Purity and Particle Size</p>	98,5	0,6 – 0,9	9 – 6,5
<b>Elutriated Barium Sulfate BA</b>	<p>Elutriated Product</p> <p>Main Application: Plastics and Rubber</p>	<p>White Impurity Reduction of BD</p> <p>Coarse Particles Reduction Of BD</p> <p>Pulverized Natural Barium Sulfate</p>	98,5	14 - 16	9 - 6



# Other Specialties

# 55

# Particles

# 55

Product	Description	Key Feature - Application	Avg. Size [μm]	pH <small>(ambient Temp. Method)</small>
<b>TISMO D</b>	Potassium Titanate Fiber [K <sub>2</sub> Ti <sub>8</sub> O <sub>17</sub> ]	High Strength and Rigidity	0,3 – 0,6	9,0 – 10,0
<b>TERRACESS PM</b>	Magnesium Potassium Titanium Oxide	Good Balance Of μ-Level and Wear	5 - 10	10,0 – 11,5
<b>TERRACESS PS</b>	Magnesium Potassium Titanium Oxide	Good Balance Of μ-Level and Wear	2 - 6	10,0 – 11,5
<b>TERRACESS L</b>	Lithium Potassium Titanium Oxide	Outstanding Low Wear	10 - 35	10,0 – 11,5
<b>TERRACESS TF-L</b>	Potassium Titanium Oxide	Good μ-Level	15 - 45	8,5 – 10,5
<b>TERRACESS TF-S</b>	Potassium Titanium Oxide	Good μ-Level	3 – 11	8,5 – 10,5
<b>DENTALL WK-500</b>	Potassium Titanate Fiber Coated with Conductive Nano Layer	Extremely Stable Resistance		2 - 4
<b>DENTALL WK-500B</b>	Potassium Titanate Fiber Coated with Conductive Nano Layer	Extremely Stable Resistance		6 - 9

# Other Specialties

# 56

# Particles-BellPearl

# 56

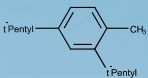
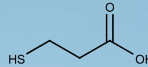
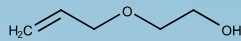
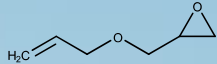
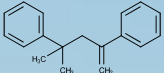
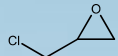
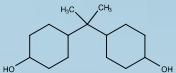

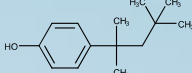
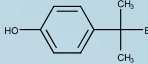
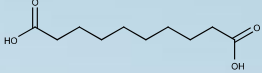
Product	Description	CAS No	Key Feature - Application	MW [g/mol]	Avg. Size	Add. Info
BellPearl S899	Bellpearl is a proprietary phenolic resin.	9003-35-4	Melted & Cured by Heat Control of Molecular Weight Abrasive   Carbon Material   Refractories Binder	4.000 - 5.000	20 µm	Low Crosslinking
Bellpearl S890				10.000		
BellPearl S870				50.000		High Crosslinking
BellPearl S830				100.000		
BellPearl R800	It is a unique material with a primary particle size of about 1 to 20µm.	9003-35-4	Infusible by Heat Control of Particle Size High Performance Carbon Material		20 µm	PDI Broad
BellPearl R700					15 µm	
BellPearl R200	Bellpearl is applied in various applications by taking advantage of its high heat resistance, environmental safety, and high residual carbonization rate.	9003-35-4	Filler of Resin Composite Pore Forming Agent		6 µm	PDI Narrow
BellPearl R100					1,5 µm	
BellPearl C800					15 µm	
BellPearl C2000XT		7440-44-0	Carbon Particle Filler for Improved Slippage Filler for Improved Conductivity		15 µm	Carbonized R800 at >2.000 °C
BellPearl C2000SR					8 µm	Carbonized at >2.00 °C

# Other Specialties

## 57

# Raw Material

## 57

Product	Description	Structure	CAS No	Key Feature - Application	Solubility	Boiling P. [°C]	Melting P. [°C]
	<b>2,4-DTAP</b> 2,4-di- <i>tert</i> -Amyl Phenol		120-95-6		Aceton Ether   MeOH Chloroform	264 - 265	53 - 56
	<b>3-MPA</b> 3-Mercapto Propionic Acid		107-96-0	Catalyst   Stabilizer for BPA-Synthesis	EtOH Benzol DE*   Water	110	17 - 19
	<b>AG</b> Allyl Glycol		111-45-5			159	
	<b>AGE</b> Allyl Glycidyl Ether		106-92-3	Raw Material for Hydrosilylation	MeOH Toluene Water	154	- 100
	<b>AMSD</b> Alpha-Methyl Styrene Dimer		6362-80-7	Monomer			
	Epichlorohydrine		106-89-8	Raw Material for Epoxy-Monomer	EtOH   Benzol CCl4 DE*	116	- 48
<b>Rikaresin HBE-100</b>	<b>HBPA</b> Hydrogenated Bisphenol A		80-04-6	Raw Material for Epoxy Resin Curing Agent for Epoxy & Poly-Urethane		253 - 257	
<b>Rikacid HH</b>	<b>HHPA</b> Hexa-Hydro Phtalic Anhydride		85-42-7	Raw Material for Poly-Carbonate Curing Agent		158	
	<b>POP</b> <i>p</i> -Octyl Phenol		140-66-9	Raw Material for Formaldehyde		279 - 281	79 - 82
	<b>PTAP</b> <i>p</i> - <i>tert</i> -Amyl Phenol		80-46-6	Raw Material for Phenol Resin	Alcohol Benzol   DE* Chloroform	249	92
	<b>SA</b> Sebacid Acid		111-20-6	Raw Material for Poly-Amide   Poly-Ester Raw Material for Plasticizer		295	131 - 134

\*Diethyl Ether

# Other Specialties

# 58

# Zeomic

# 58

Product	Description	CAS No	Key Feature - Application	Compatibility	Dosages
AC10D	Zeomic is an Inorganic Anti-Microbial and Anti-Viral Powder. Its properties origin from Silver Ions infused in Zeolite.	130328-19-7	Anti-Microbial Anti-Viral Inhibition of Low Odor Low Toxicity High Compatibility Excellent Heat Resistance	Resin (PP   PE   ABS etc.)	Resin: 0,5 – 2,0 wt% Anti-Bact.: 0,5 – 1,0 wt% Anti-Fung.: 1,0 – 2,0 wt%
AJ10D   AJ10N		130328-20-0		Plastic Film Coating Materials	Plastic Film: 0,2 -1,0 wt%
AW10D   AW10N		130328-20		Plastic Film; Sheet; Powder Paint Textile   Paint	Plastic Film: 0,3 – 2,0 wt% Pwd Paint: 1,0 – 3,0 wt% Paint: 0,5 – 3,0 wt%
DAW502		1318-02-1 1314-13-2		Moldings	ABS   HIPS: 0,5 – 1,0 wt% Others: 0,5 – 2,0 wt%
EAW502		1314-13-2 1318-02-1		Silicones	Silicone: 1,0 – 3,0 wt%
XLJ50D		1318-02-1 1314-13-3		Moldings	PP: 0,3 – 0,5 wt% LDPE: 0,3 – 0,5 wt% HDPE: 0,3 – 0,5 wt%