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We Source, We Distribute,
We Research & Develop, We Produce... *Globally*

PRODUCT CATALOGUE

Coatings, Adhesives, Sealants and Resins

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ABOUT US

Connect Chemicals is a leading global distributor, custom manufacturer, and producer, offering a wide range of specialties to the chemical industry.

Established in 1998 in Ratingen, Germany, we now have offices across four continents and a well-established international network of partners that allows us to offer global coverage while effectively serving both local and multinational organizations.

Our CASE & Resins product portfolio has expanded with the addition of new product lines, and we are ready to support you in taking your business to the next level whether in resin development or fully formulated products across a wide range of end-use applications. We specialize in distributing high-quality, high-purity ingredients with an exceptionally efficient supply chain.

From automotive coatings to composites or textile and leather applications, no matter your specific use or formulation needs, our product catalog has something to meet your requirements.

Always at the forefront of the industry and customer demands, we have evolved into a hybrid partner. Through our Custom Manufacturing process supported by our in-house R&D laboratory we are well-equipped to help you meet future challenges by developing tailored solutions to fill portfolio gaps and market needs.

CONTENTS

Acrylics / Methacrylics

Hydroxyl

Product Name	CAS Number	Molecular Weight	Assay, min %	Color, max Pt/Co	Viscosity at 25°C mPa.s	Inhibitor, MEHQ ppm max	Acid value, max%	Water, max %
Hydroxyethyl methacrylate (HEMA)	868-77-9	130	97	20	8	240	0.1	0.1
Hydroxypropyl methacrylate (HPMA)	27813-02-1	114	97	20	9	220	0.2	0.1
Hydroxypropyl acrylate (HPA)	25584-83-2		97	20	9	250	0.2	0.2
Hydroxyethyl acrylate (HEA)	818-61-1	116	97	20	11-17	250	0.2	0.2

Multifunctional - Methacrylate

Product Name	CAS Number	Molecular Weight	Assay, min %	Color, max Pt/Co	Viscosity at 25°C mPa.s	Inhibitor, MEHQ ppm max	Acid value, max%	Water, max %
Isobornyl Methacrylate (IBOMA)	7534-94-3	223	98	50	7-10	200	1.0	0.5
Methoxy PEG350 methacrylate	26915-72-0	430	97	100	20	4000-6000		0.5
Methoxy PEG550 methacrylate	26915-72-0	628	97	100	45			0.5
Methoxy PEG750 methacrylate	26915-72-0				Specification to be defined			
Methoxy PEG1000 methacrylate (50% Wt.)	26915-72-0	1080		9	42	1200-1600		50
Methoxy PEG2000 methacrylate (50% Wt.)	26915-72-0	2080		10	40	1200-1600		50
1,4-butanediol-dimethacrylate (BDDMA)	2082-81-7	226	95	100		100-400	0.1	0.1
Ethylene Glycol di-methacrylate (EGDMA)	97-90-5	198	90	80	3-10	500-600		0.2
Bisphenol A $(EO)_3$ di-methacrylate	41637-38-1	496	98	50	700-1200	400	0.2	0.2
Bisphenol A $(EO)_4$ di-methacrylate	41637-38-1	562	98	50	500-850	400	0.2	0.2
Triethyleneglycol-di-methacrylate (TEGDMA)	109-16-0	286	95	100	530	300		0.2
Polyethylene glycol-200-di-methacrylate	25852-47-5	336	98	50	15	200-400	0.05	0.2
Polyethylene glycol-400-di-methacrylate	25852-47-5				Specification to be defined			
Polyethylene glycol-600-di-methacrylate	25852-47-5	736	98	50	50-100	300-600		0.2
Trimethylolpropane tri-methacrylate (TMPTMA)	3290-92-3	338	93	70	35-55	300	0.05	0.1

Multifunctional - Acrylate

Trimethylolpropane tri-acrylate (TMPTA)	15625-89-5	296	97	25	70-110	300	0.3	0.1
Trimethylolpropane $(EO)_3$ tri-acrylate (TMP$(EO)_3$TA)	28961-43-5	692		50	90	400	0.2	0.1
Pentaerythritol $(EO)_4$ tetra-acrylate (PTT$(EO)_4$TA)	51728-26-8	571		100	120-200			0.2
Isobornyl Acrylate (IBOA)	5888-33-5	208	98	30	6-10	150	1.0	0.4

Vinylic

Product Name	CAS Number	Assay, min %	Color, max APHA	Polymer content, max ppm	Inhibitor, ppm TBC
Vinyl toluene	25013-15-4	99.2	20	15	30-60

Product Name	CAS Number	Molecular Weight	Assay, min %	Viscosity at 25°C mPa.s	Hygroscopicity	Ignition Temperature °C	Boiling Point °C	Melting Point °C
N-acryloyl morpholine - ACMO	5117-12-4	141	98	9-15	1.8 / 100g at 20°C, 60% RH	126.5	158	-8

Features & Benefits

N-acryloyl morpholine - ACMO

Contains a reactive acrylate (-C=C-) group, making it suitable for polymerization.
Can undergo free radical and UV-initiated polymerization. It is water-soluble and enhances the hydrophilicity of copolymers, it is also compatible with various solvents and monomers.
Provides heat resistance and chemical stability in polymer matrices. Suitable for biomedical and pharmaceutical applications.
Improved film-forming properties. Contributes to smooth, transparent, and flexible coatings.

Allylic

Hydroxyl

Product Name	CAS Number	Molecular Weight	Assay, min %	Color, max Pt/Co	Water, max %
Allyl glycol	111-455	102	99	10	0.2

Epoxy

Product Name	CAS Number	Molecular Weight	Assay, min %	Color, max Pt/Co	Water, max %
Allylglycidylether - AGE	106-92-3	114	99	10	0.05

Features & Benefits

Allylglycidylether - AGE

Contains both epoxide and allyl groups, allowing versatile reactivity. Participates in radical, cationic, and epoxy polymerization for crosslinking. Acts as a reactive diluent, reducing viscosity in coatings, making them easier to apply. Compatible with acrylics, urethanes, epoxies, and polyester resins, improving formulation flexibility. Enhances adhesion to various substrates, including metals, plastics, and glass.

Allyl polyethers

CC Commercial Name	Chemical Name	CAS Number	Hydroxy value	Color, max Pt/Co	Water, max %
CON AAE 4	Allylglycolethoxylate-4EO	608-071-5		50	
CON AAE 5	Allylglycolethoxylate-5EO	608-071-5	185 - 225	50	0.1
CON AAE 6-24-B	Poly(ethylene oxide propylene oxide) Mono allyl ether (6EO-24PO)	9041-33-2		50	0.1
CON AAE 8	Allylglycolethoxylate-8EO	608-071-5	134 - 148	30	0.2
CON AAE 8.5	Allylglycolethoxylate-8.5EO	608-071-5	131 - 139	30	0.1
CON AAE 10	Allylglycolethoxylate-10EO	608-071-5	107 - 117	50	0.15
CON AAE 11	Allylglycolethoxylate-11EO	608-071-5	96 - 108	50	0.2
CON AAE 24	Allylglycolethoxylate-24EO	608-071-5	95 - 107.6	100	0.1

Features & Benefits

Allyl polyethers

- Allyl Functional Groups (-CH_2-CH=CH_2)
- Enables polymerization and crosslinking reactions.
- Improves reactivity with other monomers in coatings and resins.
- Polyether Backbone (-O-R-O-)
- Provides flexibility and solubility in various solvents.
- Enhances thermal and oxidative stability.

Other functionality

CC Commercial Name	Product Name	Chemical Name	CAS Number	Molecular Weight	Assay, min %	Color, max Pt/Co	Viscosity at 25°C mPa.s	Acid Number mgKOH/g max	Water, max %
ConCap M-Epsilon		ε-Caprolactone	502-44-3	114	99.9	10	6.6	0.3	0.05
Bisphenol S		4,4-Sulfonyldiphenol	80-09-1		99				0.5
Diallyl Dimethyl Ammonium Chloride	DADMAC		7398-698		60	50			
2-Ethoxyethylcyanoacetate	2EOECA	2-Ethoxyethylcyanoacetate	32804-77-6		99				0.05
		Ethyl Iso cyanoacetate	2999-46-4		97				

Features & Benefits

ConCap M-Epsilon

Highly reactive monomer used in ring-opening polymerization. Forms linear, biodegradable polymers such as polycaprolactone (PCL).Excellent solubility & compatibility, it is soluble in many organic solvents like acetone, chloroform. Compatible with polyesters, polyurethanes, and epoxy resins it is used to increase flexibility and impact resistance in coatings and polymers.

Bisphenol S

Similar to Bisphenol A (BPA) but contains a sulfone (-SO_2-) group instead of a carbon bridge it present higher thermal and chemical stability than BPA. Can withstand higher temperatures, making it ideal for heat-resistant coatings and resins. More soluble in water than BPA, it allow better formulation flexibility in waterborne coatings and adhesives. Contributes to high impact resistance and toughness in polymer applications.

Diallyl Dimethyl Ammonium Chloride

DADMAC is a quaternary ammonium salt with a positively charged nitrogen atom. Contains two allyl groups (-CH_2-CH=CH_2), making it highly reactive in polymerization. Soluble in water due to its ionic nature. DADMAC is a highly reactive monomer that readily copolymerizes with various other monomers, such as:

- Acrylamide → for water-based coatings and adhesives
- Acrylic acid & Methacrylic acid → for high-performance resins
- Styrene & Butadiene → for latex coatings
- Vinyl Acetate → for emulsion polymers in paints

VINYL ETHERS

Vinyl ethers are versatile monomers and reactive intermediates used in various coatings applications due to their excellent reactivity, UV-curability, and resistance to hydrolysis.

Vinyl ethers

Product name	CAS Number
Isobutyl vinyl ether (IBVE)	109-53-6
n-Butyl vinyl ether (n-BVE)	111-34-2
Cyclohexyl vinyl ether	2182-55-0
Dodecyl vinyl ether (DDVE)	765-14-0
Ethyl vinyl ether	109-92-2
Ethyl vinyl ether (polymer)	25104-37-4
Hexadecyl vinyl ether	822-28-6
n-Octyl vinyl ether	929-62-4
Octadecyl vinyl ether (ODVE)	930-02-9
n-Propyl vinyl ether (NPVGE)	764-47-6
iso-Propyl vinyl ether (IPVE)	926-65-8
Ethylene glycol vinyl ether	764-48-7
Diethylene glycol divinyl ether (DEGDVE)	764-99-8
Tri ethylene glycol divinyl ether (TEGDVE)	765-12-8
4-Hydroxy butyl vinyl ether (HBVE)	17832-28-9

Applications

- UV-Curable coatings
- Protective coatings
- Waterborne coatings
- Powder coatings
- Anti-Corrosion and barrier coatings
- High performance adhesives, sealants and resins modifiers

Polyols

Product Name	CAS Number	Assay, min %	Color, max Pt/Co	Acid number mgKOH/g max	Water, max %
1,3 Propanediol (1,3 PDO)	504-63-2	99	10		0.2
1,4 Butylene glycol (1,4 BDO)	110-63-4	99	10		0.05
1,4 Butylene glycol bio (1,4 BDO-bio)	110-63-4	99.5	10	0.1	0.05
1,5 Pentanediol	111-29-5	98	20	0.1	0.1
1,6 Hexanediol	629-11-8	99	15	0.1	0.3
Pentaerythritol	115-77-5	90	2		1
Di-pentaerythritol	126-58-9	85	5		1
Dimethylolpropionic Acid	4767-03-7	99		410	0.3

Features & Benefits

1,3 Propanediol (1,3 PDO)

1,3-Propanediol is a versatile, renewable polyol that find application in a broad range of resins production. It derives from bio-based processes, has a low toxicity and exhibits good chemical stability. The use of PDO can lead to improved processing characteristics, such as lower viscosity during production, facilitating easier application and better performance in end-use.

Dimethylolpropionic Acid

Dimethylolpropionic Acid (DMPA) is a dihydroxy carboxylic acid used primarily as a reactive intermediate in coatings, adhesives, and polyurethane dispersions. It has both hydroxyl (-OH) and carboxyl (-COOH) functional groups, making it highly versatile in polymer and resin synthesis. It contains both hydroxyl (-OH) groups, allowing it to participate in esterification and urethane formation. It has a carboxyl (-COOH) group, making it useful for ionizable and water-dispersible polymer formulations. It enhances hydrophilicity in polymer matrices and improves adhesion and flexibility in coatings.

Polycaprolactone polyols

Due to their low viscosity and a narrow weight distribution, they can offer benefits in the applications for thermoplastics, coatings, paints, adhesives and foams. They impart a great hydrolytic stability and UV resistance, a possibility of application in a broad temperature range and are generally easier to process.

Polycaprolactone polyols

Product Name	Color, max	OH value	Acid number mgKOH/g max	Water, max %	Viscosity at 25°C mPa.s	Melting range
ConCap series						
ConCap P2000 series						
ConCap P2043	30	280	0.25	0.03	40	0-10
ConCap P2054	30	204	0.25	0.03	60	18-23
ConCap P2085	30	135	0.25	0.03	100	25-30
ConCap P2100	30	112	0.30	0.03	151	30-41
ConCap P2200	30	56	0.05	0.03	480	40-50
ConCap P2201	30	56	0.30	0.03	480	40-50
ConCap P2205	30	56	0.25	0.03	435	40-50
ConCap P2209	30	56	0.25	0.03	380	40-50
ConCap P2303	30	37	0.25	0.03	1100	50-60
ConCap P3000 series						
ConCap P3031	30	560	1.0	0.03	170	0-10
ConCap P3050	30	310	1.0	0.03	160	0-10

ENDLESS POSSIBILITIES FOR **HIGH-QUALITY PRODUCTS**

A versatile range to enhance your performance in the most challenging applications

REACTIVE DILUENTS

Glycidyl ethers and esters

Glycidyl ether-based reactive diluents find broad usage in the coatings and composites industry as reactive diluents in the formulation of epoxy resin-based systems for the following applications: industrial flooring, industrial adhesives, composite and lightweight material production, electronic components, high-performance protective coatings, and low-VOC/solvent-free protective coatings.

Benefits

- Improved Crosslinking & Durability
- Enhanced Adhesion
- Chemical & Corrosion Resistance
- Flexibility & Toughness
- Low Viscosity & Improved Processability
- UV & Heat Resistance

Reactive diluent & coupling agent

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy Equivalent Weight g/eq	Inorganic Chlorine mg/kg	Hydrolysable Chloride %
1,4-Butanediol Di glycidyl Ether (1,4-BDODGE)	2425-79-8	40	10-25	0.10	128-136	20	0.20
1,4-Butanediol Di glycidyl Ether (1,4-BDODGE A)	2425-79-8	40	15-20	0.10	120-125	20	0.20
1,6-Hexanediol Di glycidyl Ether (1,6-HDODGE)	1096-31-4	40	10-25	0.10	140-155	20	0.20

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy Value eq/100g	Organochlorine, max eq/100g	Inorganic chlorine, max eq/100g
N-Butyl Glycidyl Ether (N-BGE)	2426-08-6	10	2	0.1	0.65	0.01	0.001

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy equivalent weight g/eq	Hydrolysable chloride %	Inorganic chlorine mg/kg
2- Ethyl Hexyl Glycidyl Ether Technical Grade (EHGE TG)	2461-15-6	20	2-8	0.10	222-250	0.20	20

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy equivalent weight g/eq	Hydrolysable chloride %	Inorganic chlorine mg/kg
Alkyl Glycidyl Ether (C12-C14 AGE)	68609-97-2	20	4-10	0.1	294-313	0.15	20

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy equivalent weight, g/eq	Total chloride, max ppm	Free ECH, max ppm
Neodecanoic Acid Glycidyl Ester (Neo-DAGE 10 PL)	2676-1-45-5	30	4-10	0.10	235-244	1500	10

Product Name	CAS Number	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy equivalent weight g/eq	Total chloride	Hydrolysable chloride, max %
Phenyl Glycidyl Ether (PGE)	122-60-1	60	2-10	0.2	169-190	3000	0.2

Product Name	Color, max APHA	Viscosity at 25°C mPa.s	Moisture content, max %	Epoxy equivalent weight g/eq	Inorganic chlorine, max eq/100g	Hydrolysable chloride, max eq/100g
Polyethylene Glycol Di glycidyl Ether (PEGDGE)	100	50-70	0.1	263-333	0.005	0.02
Polypropylene Glycol Di glycidyl Ether (PPGDGE 40)	100	30-70	0.1	278-357	0.005	0.02
Polypropylene Glycol Di glycidyl Ether (PPGDGE 100)	100	90-140	0.1	625-910	0.005	0.02
Polypropylene Glycol Di glycidyl Ether (PPGDGE 300)	100	300-350	0.1	1000-1666	0.005	0.02

Organo-titanates, which are titanium compounds bonded with organic groups, are highly versatile and valuable in coating formulations due to their ability to enhance adhesion, dispersion, chemical resistance, and durability. These compounds typically function as coupling agents, dispersing agents, or adhesion promoters in coatings. They help create high-performance coatings that are resistant to harsh environmental conditions and that adhere strongly to a wide variety of substrates.

Titanates

Product Name	CAS Number	Titanium Content as TiO_2	Color APHA	Chloride as Cl	Specific gravity 25/25°C
Tetra Isopropyl titanate (TIPT)	546-68-9	27.8-28.4 %	< 100	< 50 ppm	0.945-0.955
Tetra-2-Ethylhexyltitanate (T2EHT)	1070-10-6	> 8.4 % (as Ti)			0.925-0.935
Tetra Ethyl titanate (TET)	3087-36-3	33.0-35.0 %			1.080-1.100
Tetra-n-butyl titanate (TNBT)	5593-70-4	22.7-24.2 %	< 100	< 50ppm	0.986-1.000
Titamix 80/20				< 50ppm	0.970-0.990
Concat LA	65104-06-5	13.2-14.0%		<120ppm	1.050-1.250
Butyl Titanate Polymer (BTP)	162303-51-7	19.4-20.6%			1.100-1.126

Features & Benefits

Tetra Isopropyl titanate (TIPT)
Highly reactive organic titanate that can be used in a broad range of processes and applications. It is a colorless, slightly yellowish liquid that is very sensitive to moisture.
Applications: catalyst to produce plasticizers, polyesters and methacrylic esters, Adhesion promoter, Cross-linking for polymers, Coatings, Surface modification (metal, glass).

Tetra-2-Ethylhexyltitanate (T2EHT)
Colorless and slightly yellowish liquid that is very sensitive to moisture.
Applications: catalyst to produce plasticizers, polyesters and methacrylic esters, Adhesion promoter, cross-linking for polymers, coatings.

Tetra Ethyl titanate (TET)
Colorless and slightly yellowish liquid that is very sensitive to moisture.
Applications: catalyst to produce plasticizers, polyesters and methacrylic esters, Adhesion promoter, cross-linking for polymers, coatings.

Tetra-n-butyl titanate (TNBT)
Melting point of -70 °C. Mixable in most of organic solvents. Used in sol-gel applications for production of TiO_2 passivating layers. In combinations with other metal alkoxides it can react to metal oxide systems. Also used as a catalyst to produce plasticizers, polyesters and methacrylic esters.

Titamix 80/20
Blend 80% TIPT and 20% TNBT with high performance of TIPT but with a higher melting point of approx. 30°C.

Concat LA
Water based titanium chelates stable in PH range 7-8 even in presence of reactants. It is and effective catalyst in direct or trans esterification and condensation reaction; a good crosslinking agent for water based hydroxyl functional binders; a good adhesion promoter and surface protection agent as it can generate a TiO_2 polymeric passivating layer.

Butyl Titanate Polymer (BTP)
Catalyst for esterification processes.

CATALYSTS & INITIATORS

Catalyst

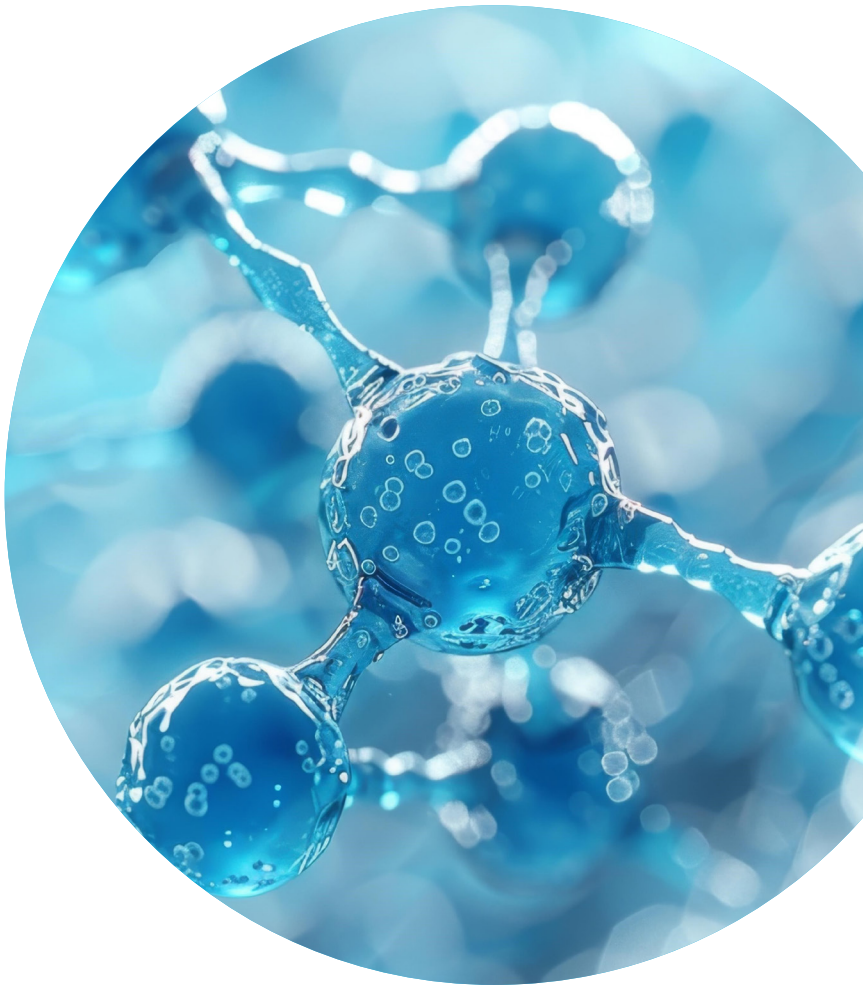
Product name	CAS Number
Triethyl phosphate (TEP)	78-40-0
Mono Butyl Tin Oxide (MBTO)	2273-43-0

Radical Initiator

Product name	CAS Number
Acetylacetone (ACAC)	123-54-6
Calcium Acetylacetonate	19372-44-2

Inhibitors

Product name	CAS Number
4-Tertiary-Butyl Catechol (TBC)	98-29-3
2,3,5-Trimethylhydroquinone (TMHQ)	700-13-0



Flame Retardants

Product Name	CAS Number	Color, max APHA	Specific Gravity 20/20°C	Acid Content, mgKOH/g max	Heating loss, max	Water content, max %
Cresyl Diphenyl Phosphate (CDP)	26444-49-5	50	1205-1215 g/cm_3	0.05	0.15	0.05

Product Name	CAS Number	Chlorine, %	Moisture, max %	Acid content, mgKOH/g max	Softening point, °C	Decomposition Temp, min °C	Heat stability, max 180°C/4hrs, HCl	CCl_4, max ppm w/w	Fe, max ppm
Chlorinated Paraffin 70%	63449-39-8	71-73	0.1	0.1	90	210	0.1	5	50

Product Name	CAS Number	Color, max APHA	Acid content, mgKOH/g max	Phosphorous content %	Chlorine content %	Water content, max %	Refractive index (n25/D)	Density (20/20 °C)	1,2 Di chloropropane, max ppm
Tris (1-chloro-2-isopropyl) Phosphate (TCPP)	13674-84-5	40	0.05	9-10	32-33	0.1	14625 - 14650	1.27-1.31	10

Product Name	CAS Number	Color, max Hazen	Acid content, mgKOH/g max	Assay, min %	Water content, max %	Refractive index	Melting point, °C
Triethyl Phosphate (TEP)	78-40-0	20	0.05	99.5	0.1	1.405-1.407	-56.4

Product Name	CAS Number	Color, max APHA	Water content, max %	Acid content, mgKOH/g max	TPP content, max %
Resorcinol bis(diphenyl phosphate) (RDP L)	57583-54-7	100	0.05	0.1	0.1

Product Name	CAS Number	ZnO%	B_2O_3%	Loss on ignition %	Surface water, %	Fineness, min %	Particle size, µm	Density, g/cm3 4°C	Melting point °C	Temp of dehydration °C	Refractive index
Zinc Borate	138265-88-0	37.0-40.0	45.0-48.0	13.5-14.5	0.5	0.1	3-5	2.67	980-990	280-350	1.58-1.59

Features & Benefits

Cresyl Diphenyl Phosphate (CDP)

CDP is used as a flame retardant and plasticizer in manufacturing for varnishes and vinyl plastics.

Chlorinated Paraffin 70%

Chlorinated paraffin 70% is a chlorinated paraffin wax (C 22-C 30) - an organic compound containing chloride polychlorinated n-alkanes. It is a white/off-white powder. The product functions as an additive in metal working fluids, sealants, and a flame retardant in paints and coatings.

Tris (1-chloro-2-isopropyl) Phosphate (TCPP)

Tris (1-chloro-2-isopropyl) Phosphate is a flame retardant commonly used in polyurethane foam consumer products, home insulation and electronics.

Triethyl Phosphate (TEP)

Triethyl phosphate is used as a catalyst, desensitizing agent for peroxides, a plasticizer for resins, plastics and gums, and as a flame retardant making non-flammable polyurethane foams and polyurethane resins.

Resorcinol bis(diphenyl Phosphate) (RDP L)

RDP is an halogen free flame retardant of high effectiveness in a broad variety of applications. can be used in formulations of intumescent coatings. thanks to its outstanding composition temperature above 300°C, RDP enhance the thermal stability of materials, during item processing. it has broad compatibility with various polymers, including PO-S alloys, EC-ABF and polyester fibers.

Zinc Borate

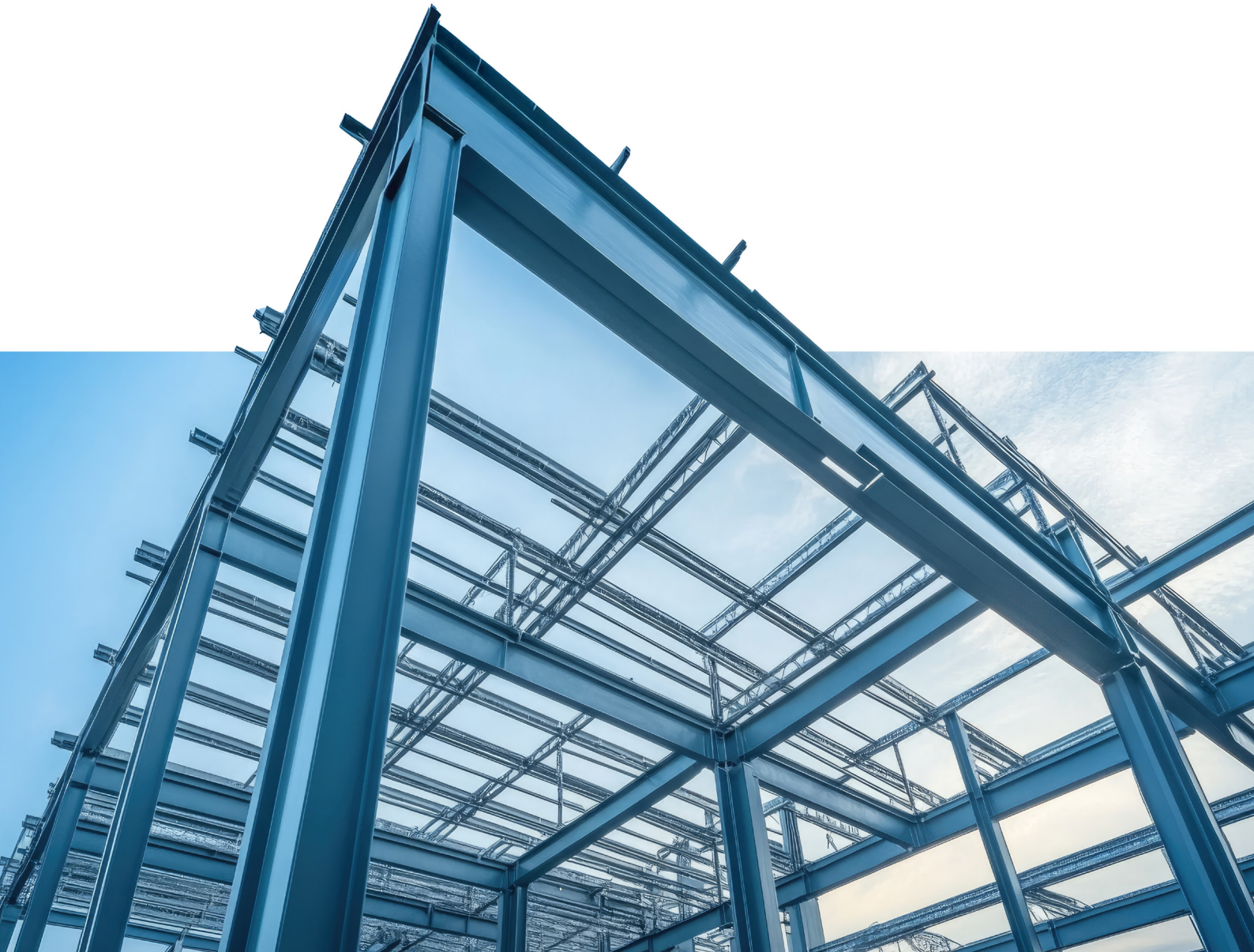
Zinc borate is a halogen-free, inorganic boron based multifunctional flame retardant. It is non-toxic, has excellent dispersibility in a number of different polymer systems, and shows high thermal stability.

Flame Retardants

Product Name	P (%) min	Acid number mgKOH/g max	Water, max %	Hydroxyl value, mgKOH/g	Solubility
FlamaCare 52	12	8	0.3	400	Water, methanol, ethanol, isopropanol

FlamaCare 52

FlamaCare is a halogen-free molecule with high level of flame retardant properties which is able to react with most common polymeric matrices. It is safe for people and the environment because it avoids the presence of dangerous halogens in the final products and prevents any kind of chemical emissions, as it is chemically linked in the polymer matrix permanently. Due to its characteristics, it is recommended for rigid polyurethane as it can be incorporated in the foam structure by reacting as a polyol. It can be use in all coating formulation containing polymers that can react with hydroxyl functional group like epoxy resins, vinyl esters and unsaturated polyesters. Due to the combined presence of phosphorous and nitrogen inside the molecular structure we obtain a synergetic effect that increase the efficiency of the formulated intumescent coating.



Ammonium Polyphosphate

Product Name	P (%) min	N (%) min	Particle size (%) (< 50µm) min	Average particle size (D50) (µm)	Water solubility (g/100ml at 25°C)	Main Applications
APP 201P	31	14	95	18	0.5	Rubber, PU foam, expandable fireproof coatings, thermosetting and thermoplastics resins.
APP 201S	31	14	95	18	0.5	

Product Name	CAS Number	P (%) min	N (%) min	Particle size (%) (< 50µm) min	Average particle size (D50) (µm)	Water solubility (g/100ml at 25°C)	Treatment	Main Applications
APP 202	68333-79-9	29	16-18	95	18-22	0.3	Melamine modified	Paper, wood, textiles, cables, rubber, variety of polymers.
APP 203	68333-79-9	30-31.5	14-46	95	18-22	0.3	Silane modified	Rubber, PU foam, expandable fireproof coatings, thermosetting and thermoplastics resins.
APP 226	68333-79-9	29-31	13-15	90	20-24	0.15	Epoxy resin coated	Textile coating. epoxy and PU resins.
APP 231	68333-79-9	29-31	16-18	90	20-24	0.04	Melamine formaldehyde resin coated	Paper, wood, textiles, cables, rubber, variety of polymers.

Product Name	CAS Number	P_2O_5 content (%) min	N (%) min	Average polymerization degree (n)	pH (10% aqueous suspension)	Particle size (<45µm) (%) min	Average particle size (µm)	Moisture content (%) max	Water solubility (g/100ml at 25°C) max
APP I	68333-79-9	69	14	50	5.5 - 7.5	97	15 - 20	0.25	2

Product Name	CAS Number	P_2O_5 content (%) min	N (%) min	pH (1% aqueous suspension)	Water solubility (g/100 ml at 25°C) min
APP 100	68333-79-9	45	24	6.5-8.5	60
APP 111	68333-79-9	59	18	5.5-7.5	150

Features & Benefits

APP I

APP I has a high phosphorous and nitrogen content, a high polymerization degree, low water solubility, good thermal stability, and low toxicity.

APP 100

Has a lower phosphorous and higher nitrogen content than KYLIN APP1, high water solubility and good compatibility with other flame retardants and auxiliary chemicals.

APP 111

Has a lower phosphorous and higher nitrogen content than KYLIN APP1, very high water solubility (over 150 grams in 100ml of water at 25°C) and good compatibility with other flame retardants.

Plasticizer

Product Name	CAS Number	Color, max Hazen	Acid content, mgKOH/g max	Assay, min %	Water content, max %	Refractive index	Melting point, °C
Tri-ethyl phosphate (TEP)	78-40-0	20	0.05	99.5	0.1	1.405-1.407	-56.4

Product Name	CAS Number	Color, max APHA	Acid content, mgKOH/g max	Moisture, % max	Density at 20°C g/cm3	Refractive index at 25°C
Tri-butoxy-ethyl phosphate (TBEP)	78-51-3	50	0.1	0.1	1.017-0.023	1.432-1. 437

Product Name	CAS Number	Dynamic viscosity at 20°C mPa.s	Specific gravity 20°C/20°C	Color max APHA	Refractive index nD25	Acid value mgKOH/g max
DEHCH (bis(2-ethylhexyl) cyclohexane-1,4-dicarboxylate)	84731-70-4	30-45	0.953-0.959	30	1.456-1.1462	0.07

Product Name	CAS Number	Color, max APHA	Water content, max %	Purity,%	Acidity content, mgKOH/g max
Tri-isobutyl phosphate (TiBP)	126-71-6	20	1	99	0.5

Features & Benefits

Tri-ethyl phosphate (TEP)

Tri-ethyl phosphate is used as a catalyst, desensitizing agent for peroxides, a plasticizer for resins, plastics and gums, and as a flame retardant making non-flammable polyurethane foams and polyurethane resins.

Tri-isobutyl phosphate (TiBP)

Defoaming agent for concrete admixtures,strong wetting agent, widely used in the textile industry

Waxes

Product name	CAS Number	Color, max Gardner	Acid value, mgKOH/g max	Melting point, °C	Water, max %
ConWX EBS	68390-94-3	3	7.5	141.5-146.5	0.2
Elofer EBS10LP	68390-94-3	5	7	141.5-146-5	0.2
Stearamide	124-26-5	7	7-11	102.0-108.0	0.2

Features & Benefits

ConWX EBS

Ethylene bis stearamide is a synthetic wax produced with high content of renewable material, widely used across industries. It is compatible with a large number of polymers. Available in different forms and specifications, to satisfy applications requirements.

Elofer EBS10LP

Ethylene bis stearamide is a synthetic wax produced with high content of renewable material, widely used across industries. It is compatible with a large number of polymers. Available in different forms and specifications, to satisfy applications requirements.

Stearamide

Stearamide is a waxy compound derived from stearic acid, utilized in the production and processing of several plastics, rubber and textile applications. It can be used as internal lubricant, mold release agent, antistatic additive, viscosity control. Available in different forms and specifications.

Fumed Silica

Fumed silica is a hydrophobic fumed silica treated with a dimethyl silicone fluid. This surface treatment results in a hydrophobic silica with a different performance than untreated silica and the product acts as a rheology modifier imparting good thickening efficiency, sag resistance and anti-settling.

Applications
- Thixotropy & Rheology Control – Prevents sagging and dripping in coatings while allowing easy application.
- Anti-Settling & Suspension Stability – Keeps pigments, fillers, and other particles uniformly dispersed.
- Improved Scratch & Abrasion Resistance – Strengthens coatings for better durability.
- Anti-Corrosion & Barrier Protection – Enhances resistance against moisture and chemicals.
- Matting & Gloss Control – Used to adjust gloss levels in matte or satin coatings.
- Anti-Blocking & Slip Enhancement – Reduces tackiness and enhances surface smoothness.

Fumed Silica

Product Name	CAS Number	Surface area (m^2/g)	Loss on drying at 105°C/2h (wt.%)	pH value (4% suspension)	Ignition loss (wt.%)	Silica content (wt. %)	Content of carbon (wt. %)	Tapped density (g/L)
Fumed Silica HB-15	68611-44-9	100-160	0.7	3.7	2.5	99.8	0.6-0.12	40-60

Product Name	CAS Number	Surface area (m^2/g)	Loss on drying at 105°C (wt.%)	pH value	Ignition loss at 1000°C (wt.%)	Tapped density (g/L)	SiO_2 content (wt.%)	Content of carbon (wt. %)	Chloride content (mg/kg)
Fumed Silica HB-139	67762-90-7	80-120	1.5	5.5-7.5	10.0	40-60	99.8	4.5-6.5	250

Product Name	CAS Number	Surface area (m^2/g)	Loss on drying at 105°C (wt.%)	pH value (4% dispersion)	Bulk density (g/l)	SiO_2 content (wt.%)
Fumed Silica K-P20	67762-90-7	100-140	0.5	4.0-7.0	50	99.8

Polydimethylsiloxane series (PDMS)

Polydimethylsiloxanes (PDMS) belong to a group of polymeric organosilicon compounds that are referred to as silicones and are the most widely used silicon-based organic-polymer. Polydimethylsiloxanes (PDMS) are particularly known for their unusual rheological or flow properties. They are optically clear and inert, non-toxic, and non-flammable. Connect Chemicals offers a full range with different molecular weight to satisfy the specific requirement of each specific applications.

Applications
- Automotive Coatings – Enhances gloss, water beading, and scratch resistance.
- Marine & Anti-Fouling Coatings – Prevents biofouling on ship hulls.
- Self-Cleaning & Anti-Graffiti Coatings – Reduces dirt accumulation on buildings.
- Industrial Protective Coatings – Provides UV, chemical, and heat resistance.
- Powder & Wood Coatings – Improves flow, leveling, and slip properties.

Polymethylhydrosiloxane (PMHS)

PMHS (Polymethylhydrosiloxane) is a type of silicone polymer with reactive Si-H (silicon-hydrogen) bonds. It is widely used in coatings due to its unique properties, such as hydrophobicity, cross-linking ability, and thermal stability.

Applications
- Water-Repellent and Anti-Corrosion Coatings – PMHS is often used to create superhydrophobic coatings, making surfaces water-resistant.
- Crosslinking Agent in Silicone Coatings – PMHS acts as a crosslinker in silicone coatings, enhancing durability, adhesion, and flexibility.
- Surface Modification – PMHS is used to modify surfaces by forming a hydrophobic layer, reducing water absorption and improving self-cleaning properties.
- Binder for Functional Coatings – PMHS helps in forming tough, flexible coatings by reacting with various fillers and additives. It is used in anti-fouling, anti-graffiti, and fingerprint-resistant coatings.
- Anti-Icing and Ice-Phobic Coatings – PMHS's hydrophobicity minimizes ice adhesion on aircraft wings, wind turbines, and roads.
- UV-Resistant and Heat-Resistant Coatings – PMHS boosts thermal and UV resistance in coatings, ideal for outdoor use in solar panels and industrial equipment.

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Organic

Product Name	CAS Number	Assay, min %	Color, max APHA	Water, max %	Phenol, max ppm
Phenoxyethanol	122-99-6	99.8	5	0.1	10

Product Name	CAS Number	Assay, min %	Color, max APHA	Water, max %	Ethanol, max %
Diethyl carbonate (DEC)	105-58-8	99.6	10	0.1	0.2

Product Name	CAS Number	Assay, min %	Color, max Pt/Co	Water, max %	Methanol, max %
Dimethyl carbonate (DMC)	616-38-6	99.5	10	0.1	0.5

Product Name	CAS Number	Assay, min %	Color, max APHA	Water, max %
Propylene carbonate (PC)	108-32-7	99.5	40	0.1

Renewable

Product Name	Acid number mgKOH/g max	Assay, min %	Hydroxyl value, mgKOH/g	Water, max %	Viscosity at 25°C mm^2/s	OH number, mgKOH/g
FAVES	30	99	35	1	60	35

Product Name	CAS Number	Ester content, min %	alcohol content max %	Acidity mgKOH/g max	Color APHA	Water % max	Viscosity at 25°C mPa.s
Dibasic esters mix (DBE)	906-170-0	99	0.2	0.3	25	0.1	2.4

Features & Benefits

Dibasic esters mix (DBE)

Dibasic ester (DBE) is a refined mixture of dimethyl esters of adipic, glutaric and succinic acids. DBE is a liquid non-flammable, readily biodegradable and non-corrosive with mild fruity odor. DBE is readily soluble in alcohols, ketones, ethers, and many hydrocarbons, but only slightly soluble in water and higher paraffins.

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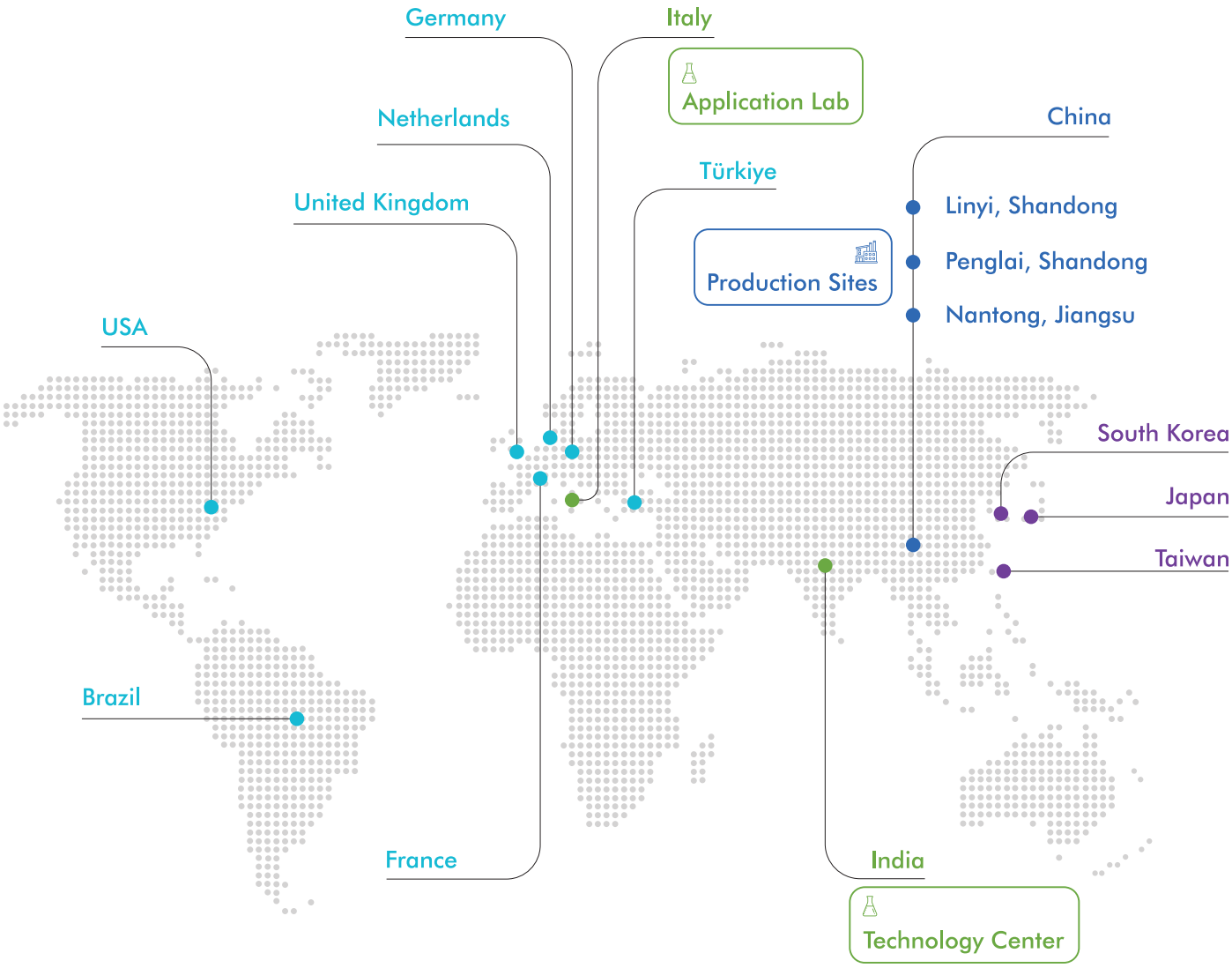

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