



**PERFORMANCE CHEMICALS FOR SYNTHETIC RESIN & RUBBER
INDUSTRIES AND PAINT, INK & PIGMENT INDUSTRIES**

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IMPORTANT :

Before handling these products, refer to the current Safety Data Sheet for recommended protective equipment, and detailed precautionary and hazards information.

SANYO CHEMICAL PRODUCT OUTLINE

1. Emulsifiers for Emulsion Polymerization

Product Name	Principal Component (Product form)	Uses and Features
NAROACTY CL Products	Polyoxyalkylene alkyl ether (Liquid, Paste, Solid and Flake)	NAROACTY CL products have a wide range of HLB values, being used alone or in combination with anionic surfactants as emulsifiers for emulsion polymerization of vinyl acetate, acrylic esters, etc. See page 5.
NEWPOL PE-64 PE-68	Block polymer of polyoxyethylene and polyoxypropylene (Liquid, Flake)	These products are low-foaming emulsifiers used alone or in combination with anionic surfactants in emulsion polymerization of vinyl acetate, or acrylic ester. They effectively lower surface tension of emulsions.
SANDET EN	Sodium salt of alkyl ether sulfate (Liquid)	SANDET EN is used alone or in combination with nonionic surfactants in emulsion polymerization of vinyl acetate, acrylic esters, etc. It performs like both nonionic and anionic emulsifiers and is useful in developing various emulsions with excellent chemical stability.
SANDET ONA	Sodium salt of alkylsulfate (Liquid)	SANDET ONA is used alone or in combination with nonionic surfactants in emulsion polymerization of vinyl acetate, acrylic ester, vinylidene chloride, etc. It produces emulsion with relatively large particles.
SANMORIN OT-70	Sodium dioctyl sulfosuccinate (Liquid)	SANMORIN OT-70 is used alone or in combination with any surfactants (except cationic) as a wetting agent, penetrating agent, laundry detergent, industrial detergent, emulsifier, etc. It excels in the ability to lower surface tension and exhibits excellent wetting and penetrating properties.
ELEMINOL JS-20	Sodium alkyl allyl sulfosuccinate (Liquid)	ELEMINOL JS-20 is a copolymerizable emulsifier, used alone or in combination with other nonionic surfactants in emulsion polymerization of vinyl acetate, styrene, ethyl acrylate, butyl acrylate, etc. The resulting emulsion has low viscosity, produces less foam, and is mechanically stable against phase separation. The resulting film has high water resistance.
ELEMINOL RS-3000	Sodium methacryloxypolyoxy- propylene sulfonate (Liquid)	

2. Pigment Dispersants (Oligomer Type)

Product Name	Principal Component (Product form)	Uses and Features
SANWAX Products	Low-molecular-weight polyethylene (Powder, Pellet)	SANWAX products include pigment dispersants and flow improvers, suitable for polymers such as PE, PP, PVC, and ABS. As an additive for use in printing ink and paint, they can improve abrasion resistance, and anti-scratching, anti-blocking (anti-sticking) and anti-slipping properties of printed or painted surfaces. They are also useful as delustering agents. See page 5.
VISCOL Products	Low-molecular-weight polypropylene (Powder)	VISCOL products permit uniform dispersion of pigments and fillers into molten synthetic resins like PP. As an additive for use in printing ink and paint, they can improve abrasion resistance, and anti-scratching, anti-blocking (anti-sticking) and anti-slipping properties of printed or painted surfaces. They are also useful as delustering agents. See page 5.
UMEX Products	Acid modified low-molecular- weight polyolefin (Granule, Powder)	UMEX products are a series of acid modified low-molecular-weight polyolefin containing a carboxylic acid anhydride group as the functional group. These products have a higher degree of modification and lower melt viscosity compared with conventional acid modified polyolefin. These products impart high dispersibility to both pigments and fillers in resins, and the mixture readily adheres to other materials including paint film. See page 6.

3. Resin Modifiers

Product Name	Principal Component (Product form)	Uses and Features
NEWPOL BP Products	Bis (hydroxyphenyl) propane, propoxylated (Liquid)	These products are alkylene oxide adducts of bisphenol-A, used for a wide range of applications such as raw materials for resins, raw materials of intermediates, and resin modifiers. For example, they can be used as a diol component for corrosion resistant grade unsaturated polyester resins. They are also useful as modifiers for polyether, epoxy resins, and polyurethane. See page 5 and 6.
NEWPOL BPE Products	Bis (hydroxyphenyl) propane, ethoxylated (Granule, Liquid)	
UMEX Products	Acid modified low-molecular-weight polyolefin (Granule, Powder)	When UMEX 1010 is added to a mixture of ethylene propylene rubber and polypropylene, the surface of the molded resin is modified. The contact angle of liquid on the molded resin also decreases. Consequently, adhesion of the resin to a high polar paint (melamine type, polyurethane type, etc.) is improved dramatically. When either UMEX 100TS or UMEX 110TS is added to hot melt adhesives, the workability of the adhesives is enhanced because their melt viscosity decreases compared with a mixture of a viscosity depressant (low molecular polyolefin type), including polyethylene wax, furthermore, the UMEX products improve the peel strength and creep resistance. See page 6.

4. Antistatic Agents

Product Name	Principal Component (Product form)	Uses and Features
CHEMISTAT 3033	Anionic surfactant (Granule)	Excellent heat resistance. Effective when used with resins having a high Tg (inappropriate for transparent products).
CHEMISTAT 2500	Nonionic surfactant (Liquid)	Has a relatively high antistatic property. Applicable in both kneading and coating processes.
CHEMISTAT 3500	Anionic surfactant (Paste)	Applicable to inks and paints.
SANSTAT 2012A	Cationic surfactant (Liquid)	Effective for almost all resins.
PELESTAT NC6321 NC7530 230 300 VH230 HC6800	Block-type thermoplastic elastomer (Pellet)	These products are polymer-alloy type permanent antistatic agents. They impart antistatic properties to resins, and their antistatic effects are long-lasting. PELESTAT NC6321, PELESTAT NC7530 and PELESTAT HC6800 are suitable for styrene resins, while PELESTAT 230, PELESTAT 300 and PELESTAT VH230 are suitable for polyolefin. See page 6.

5. Mold Releasing Agents

Product Name	Principal Component (Product form)	Uses and Features
NEWPOL LB-625 LB-1715	Polyoxypropylene glycol monoalkyl ether (Liquid)	These products are suitable for application to rubbers, plastics such as high speed tire molding, foam rubber, etc. They are used in organic solvent solution.
NEWPOL 50HB-2000	Poly (oxyethylene, oxypropylene) glycol monoalkyl ether (Liquid)	NEWPOL 50HB-2000 is suitable for application to rubber, plastics such as high speed tire molding, foam rubber, etc. It is used in aqueous solution.
NEWPOL 50HB-5100	Poly (oxyethylene, oxypropylene) glycol monoalkyl ether (Liquid)	NEWPOL 50HB-5100 is suitable for application to automotive radiator hose, household rubber hose, etc. It is used in aqueous solution.
PEG 4000S 6000S	Polyethylene glycol (Flake)	These products are suitable for application to both foam rubber and latex foam.

6. Printing Ink Binders

Product Name	Principal Component (Product form)	Uses and Features
SANPRENE IB-422 IB-1700D IB-971 IB-972 IB-974	Polyurethane resin solution (Liquid)	SANPRENE IB products are binders for special gravure printing inks. They exhibit high adhesion to polyester or nylon film, heat resistance and oil resistance. They are also suitable for polyurethane lamination film. SANPRENE IB-422 is an one-component type, and the rest of the SANPRENE IB products in the list are a two-component curing type. See page 6.

7. Compounding Ingredients for Paints and Printing Inks

Product Name	Principal Component (Product form)	Uses and Features
SANWAX Products	Low-molecular-weight polyethylene (Powder, Pellet)	These products are additives used in printing ink and paint to improve abrasion resistance, and anti-scratching, anti-blocking (anti-sticking) and anti-slipping properties of printed or painted surfaces. They are also suitable as a delustering agent. See page 5.
VISCOL Products	Low-molecular-weight polypropylene (Powder)	

8. Pigment Dispersants (Surfactant Type)

Product Name	Principal Component (Product form)	Uses and Features
SANSPEARL PS-2	Polycarboxylic acid type high molecular surfactant (Liquid)	SANSPEARL PS-2 is a high performance pigment dispersant. In particular, the resulting mixture has excellent viscosity and stability during storage and heating. It excels in the ability to reduce the viscosity of pigment slurry.
SANMORIN OT-70	Sodium dioctyl sulfosuccinate (Liquid)	SANMORIN OT-70 is a pigment dispersant. It exhibits excellent wetting and penetrating properties for hydrophobic pigments.
IONET D Products M Products	Polyoxyethylene fatty acid ester (Solid, Liquid)	These products are general-purpose pigment dispersants. A variety of products are available. See page 6.
IONET S-80	Sorbitan fatty acid ester (Liquid)	IONET S-80 is a pigment dispersant effective in organic solvents.
IONET T-60V	Polyethoxylated sorbitan fatty acid ester (Liquid)	IONET T-60V is a pigment dispersant effective in aqueous solution.

9. Defoaming Agents

Product Name	Principal Component (Product form)	Uses and Features
COLORIN 302	Derivative of polyalkylene glycol (Liquid)	COLORIN 302 is an economical defoaming agent for manufacture of acrylonitrile. It exhibits high defoaming properties, improving product yield and working efficiency.
COLORIN EM-104	Proprietary formulated product (Liquid)	COLORIN EM-104 is a defoaming agent for the manufacturing process of latex. It exhibits high defoaming properties, improving product yield and working efficiency.

10. Plasticizers for Polyurethane-Based Sealants

Product Name	Principal Component (Product form)	Uses and Features
SANFLEX SPX-80N	Polyether (Liquid)	These products are plasticizers for polyurethane-based sealants. When a top coat is applied to the plasticized polyurethane-based sealant, it minimally bleeds through to the top coat.
SANFLEX GPA-3000	Polyester (Liquid)	
SANFLEX LBU-25	Modified polyester (Liquid)	
EB-200	Polyethyleneglycol-dibenzoate (Liquid)	

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