

PRODUCT LIST

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

1. Curing Agents for Epoxy Resins and Epoxy Resin Enamels
2. Pigment Dispersants (Oligomer Type)
3. Emulsifiers for Emulsion Polymerization
4. Stabilizer for Emulsions and Latexes
5. Resin Modifiers
6. Internal Antistatic Agents
7. Mold Releasing Agents
8. Printing Ink Binders
9. Compounding Ingredients for Paints and Printing Inks
10. Polyurethane Coating Materials
11. Pigment Dispersants (Surfactant Type)
12. Defoaming Agents
13. Plasticizer for Polyurethane-Based Sealant

2 PERFORMANCE CHEMICALS FOR COSMETICS, PHARMACEUTICALS, DETERGENTS AND AGRICHEMICALS

Performance Chemicals for Cosmetics

1. Base Materials for Shampoos (Anionic Type)
2. Base Materials for Shampoos (Amphoteric Type)
3. Foam Stabilizers and Thickeners for Shampoos
4. Base Materials for Body Washes
5. Base Materials for Hair Conditioners
6. Compounding Ingredients for Cosmetics
7. Emulsifiers for Cosmetics

Performance Chemicals for Pharmaceuticals

1. Tablet Binders
2. Base Materials for Ointments
3. Coating Agents for Tablets
4. Germicides (Pharmaceutical Use)
5. Other Products for Pharmaceuticals

Performance Chemicals for Detergents

1. Base Materials for Detergents
2. Germicides (Industrial Use)
3. Additives for Detergents
4. Base Materials for Household Softeners
5. Industrial Defoaming Agents

Performance Chemicals for Agrichemicals

1. Emulsifiers for Emulsifiable Concentrates
2. Dispersants for Granule Preparations

3 PERFORMANCE CHEMICALS FOR POLYURETHANE AND POLYURETHANE-RELATED INDUSTRIES

1. Polyether Polyols for Flexible Slabstock Polyurethane Foams
2. Polyether Polyols for Automobile Hot Molded Seat Cushions
3. Polyether Polyols for Automobile High-Resilient Molded Seat Cushions
4. Polyether Polyols for Crushpad Foams
5. Polyether Polyols for Rigid Polyurethane Foams
6. Polyfunctional Polyols
7. Example of Polyurethane Foam System
8. Polyether Polyols for CAASE
9. Prepolymers and Raw Materials for Polyurethane Elastomers
10. Base Materials for Synthetic Leathers
11. Water-Borne Polyurethanes for Textile Processing
12. Polyurethane Emulsions for Adhesives
13. Polyurethane Emulsions for Coatings

4 PERFORMANCE CHEMICALS FOR LUBRICANT INDUSTRIES AND MACHINERY & METAL PROCESSING INDUSTRIES

1. Lubricating Oil Additives
2. Base Materials for Polyalkylene Glycol-Type Lubricants
3. Base Materials for Water-Soluble Quenchants
4. Base Materials for Hydraulic Fluids
5. Materials for Brake Fluids
6. Rust Inhibitors
7. Water-Soluble Cutting Fluids
8. Emulsifiers for Metal Working Oils
9. Base Materials for Metal Cleaners

5 PERFORMANCE CHEMICALS FOR RESOURCE EXTRACTION AND MINING INDUSTRIES

1. Polymer Flocculants
2. Dewatering Accelerator
3. Cold Flow Improvers
4. Lubricity Improver
5. Dewaxing Aids

6 PERFORMANCE CHEMICALS FOR WASTEWATER TREATMENT

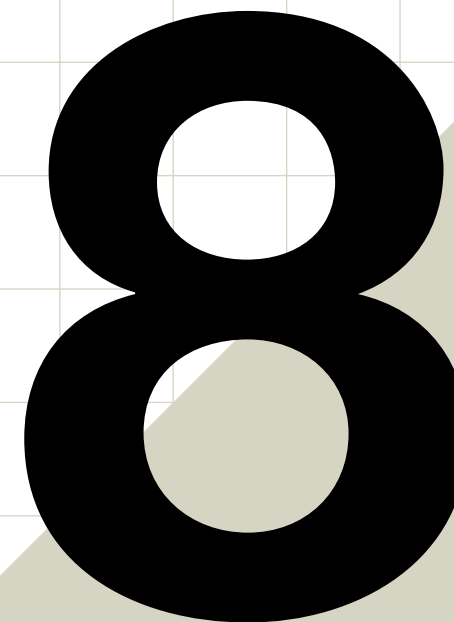
1. Polymer Flocculants
2. Aminoalkyl Methacrylate Monomers

8 PERFORMANCE CHEMICALS FOR CONSTRUCTION AND PUBLIC WORKS

1. Flooring Materials
2. Polyurethane for Architectural Paints
3. Water Sealants
4. Waterproofing Agents
5. Concrete Admixtures
6. Dispersant for Manufacturing Cement Boards by Extrusion Molding
7. Foaming Agent for Foam Concrete
8. Agents for Drilling Mud
9. Waste Mud Solidification
10. Polymer Flocculants for Gravel Washing Wastewater Treatment
11. Binder for Ceramics

9 ADHESIVES AND ADHESIVE-RELATED PRODUCTS

1. Pressure-Sensitive Adhesives (Cohesive Agents)
2. Potting Resins for Artificial Kidneys (Hollow-Fiber Type)
3. Resins for Anti-Corrosion Paints for Automobiles (for Improving Adhesion of Paints to Electrodeposition Steel)
4. Binders for Fiber-Finishing Agents
5. Polyurethane Emulsion for Bonding Plastics, Cloth and Wood
6. Binders for Fiberglass
7. Curing Agents for Epoxy Resins



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IMPORTANT :

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

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SANYO CHEMICAL PRODUCT OUTLINE

1. Flooring Materials

Product Name	Principal Component (Product Form)	Uses and Features
SANPRENE C-810	Urethane prepolymer (Liquid)	SANPRENE C-810 is a one-component type moisture-curing polyurethane coating agents for wood floors. The resulting flooring excels in impact resistance, flex-resistance, water resistance and chemical resistance.
SANPRENE FLR-603	Urethane prepolymer (Liquid)	SANPRENE FLR-603 forms a film having high abrasion resistance by reacting with curing agents such as 3,3' -dichloro-4,4' -diamino diphenyl methane (MOCA)

2. Polyurethane for Architectural Paints

Product Name	Principal Component (Product Form)	Uses and Features
UCOAT Products	Water-borne polyurethane emulsions (Liquid)	These products are polyurethane emulsions which are suitable as a pigment dispersing resin for paint because this product has high pigment dispersibility and also imparts toughness and water resistance to paint film.

3. Water Sealants

Product Name	Principal Component (Product Form)	Uses and Features
CHEMIGUARD U-1	Urethane prepolymer and inorganic compound (Liquid)	CHEMIGUARD U-1 is a sealant for straight-web steel sheet piles. When joint parts are coated, it creates a water-tight seal that is close to perfect.
CHEMIGUARD CS-3	Urethane prepolymer (Paste)	CHEMIGUARD CS-3 is Sealant as a one component moisture-curing type contained in a cartridge. This product absorbs water, which doubles its volume, thereby filling gaps with near perfect water cutoff performance.

4. Waterproofing Agents

Product Name	Principal Component (Product Form)	Uses and Features
DOUBLE COAT S System DOUBLE COAT S-1 DOUBLE COAT S-2W DOUBLE COAT S-3	Epoxy resin (Liquid) Polyamideamine (Liquid) Cement/silica sand (Powder)	A system composed of a main component: DOUBLE COAT S-1, a curing agent: DOUBLE COAT S-2W, and an aggregate: DOUBLE COAT S-3. The system forms a water-impermeable film that adheres firmly to concrete surfaces, preventing water from entering the main part of a concrete structure, and excels in chemical resistance.

5. Concrete Admixtures

Product Name	Principal Component (Product Form)	Uses and Features
TETRA GUARD AS-20 TETRA GUARD PW	Polyoxyalkylene alkyl ether (Liquid) Polyoxyalkylene alkyl ether and inorganic compound (Powder)	These products are shrinkage-reducing agents for concrete. They reduce the surface tension of water contained in concrete and prevent cracks in the finished concrete structure.

6. Dispersant for Manufacturing Cement Boards by Extrusion Molding

Product Name	Principal Component (Product Form)	Uses and Features
LEVEFLOW EX-35	Methacrylate polymer (Liquid)	LEVEFLOW EX-35 is a dispersant for manufacturing cement boards by extrusion molding, which improves fluidity of cement. It enables cement boards to be produced with a beautiful finish at lower extrusion pressure and higher speed on extrusion molding machines.

7. Foaming Agent for Foam Concrete

Product Name	Principal Component (Product Form)	Uses and Features
SR-1	Surfactant compound (Liquid)	SR-1 allows concrete to become lightweight by containing fine bubbles in a mixture of SR-1/water and adding cement fluid.

8. Agents for Drilling Mud

Product Name	Principal Component (Product Form)	Uses and Features
SANCARRIER No.5L	Acrylate polymer and inorganic compound (Liquid)	These products are used for the diaphragm wall method, cast-in-place concrete pile method and other methods.
Super Slurry B Super Slurry C Super Slurry D	Acrylate polymer (Liquid)	SANCARRIER No.5L is a dispersant for bentonite mud, that prevents viscosity increase of drilling mud which occurs when cement or seawater gets mixed into the mud. Super Slurry C is used for excavated soils, that also prevents viscosity increase of drilling mud and the collapse of unstable strata. During processing, Super Slurry B can be added when the viscosity increases and Super Slurry D can be added when wall-building properties decrease.

9. Waste Mud Solidification

Product Name	Principal Component (Product Form)	Uses and Features
SANFRESH Products	Cross-linked polyacrylate of super absorbent polymers (Powder)	These products are able to absorb 400 to 700 times as much water as their own weight due to their high water absorbency. After absorbing water and becoming gel, these products retain water even when some pressure is applied to the gel.

10. Polymer Flocculants for Gravel Washing Wastewater Treatment

Product Name	Principal Component (Product Form)	Uses and Features
SANFLOC SW Products	Polyacrylamide (Powder)	Water-soluble linear polymers with high molecular weight. They excel in absorption of suspended particles and flocculate the fine particles into coarse flocs because there are many active groups in the molecules. They promote sedimentation of flocs; and they facilitate clarification of suspension, and filtration and dewatering of sludge.

11. Binder for Ceramics

Product Name	Principal Component (Product Form)	Uses and Features
CB-1	Acrylic resin (Beads)	CB-1 is an acrylic resin which exhibits a high thermal decomposition, and high-molecular-weight type. It exhibits an excellent molded shape retention property and hardness of resulting ceramics. Expected applications are as binders for injection molding.