



The Sumitomo Group is a group of distinguished industrial, financial and commercial enterprises that share a mutual heritage of adherence to the business precepts established by the founder of the House of Sumitomo nearly 400 years ago. Emphasizing integrity, sound management and a progressive attitude, these principles have guided Sumitomo enterprises to positions of leadership in the fields of trade and industry. Although financially and managerially independent, Sumitomo Group companies are proud of their heritage.



We will solve issues  
facing the earth and peoples' lives  
through Sumitomo Seika's "Chemistry"



#### General Affairs and Personnel Office

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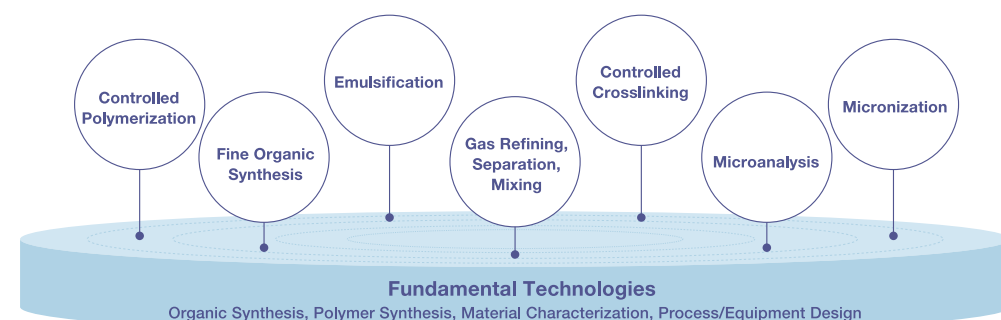




We will solve issues  
facing the earth and peoples' lives  
through Sumitomo Seika's "Chemistry"

### Sumitomo Seika's "Chemistry"

- Composed of our core technologies having distinctive advantages and uniqueness as below:



- Creates something new by fusing a variety of existing products or technologies
- Figuratively means that our corporate culture makes it possible to create new things through people working together

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# Business Areas

Sumitomo Seika's technologies for healthy and comfortable living.

Sumitomo Seika group aims to contribute to society through our business activities under the group's purpose statement "We will solve issues facing the earth and peoples' lives through Sumitomo Seika's "Chemistry"". We will continue to develop products that make daily life more convenient and comfortable in various fields.



## Super Absorbent Polymers

Sumitomo Seika's super absorbent polymer AQUA KEEP can absorb and retain up to several hundred times its weight in water. With its unique technology developed over many years of research and development, we are able to flexibly respond to the needs of users in all regions, both in Japan and overseas, by freely controlling water absorption capabilities according to the user's application, and has earned a high reputation worldwide. This technology has been incorporated into a wide variety of products, from everyday necessities such as disposable diapers and pet sheets to industrial products, such as water repellent materials for power and optical cables. Then, with production bases in Japan, South Korea, Singapore, and France, we have set up a system for meeting the demands of every region of the world.

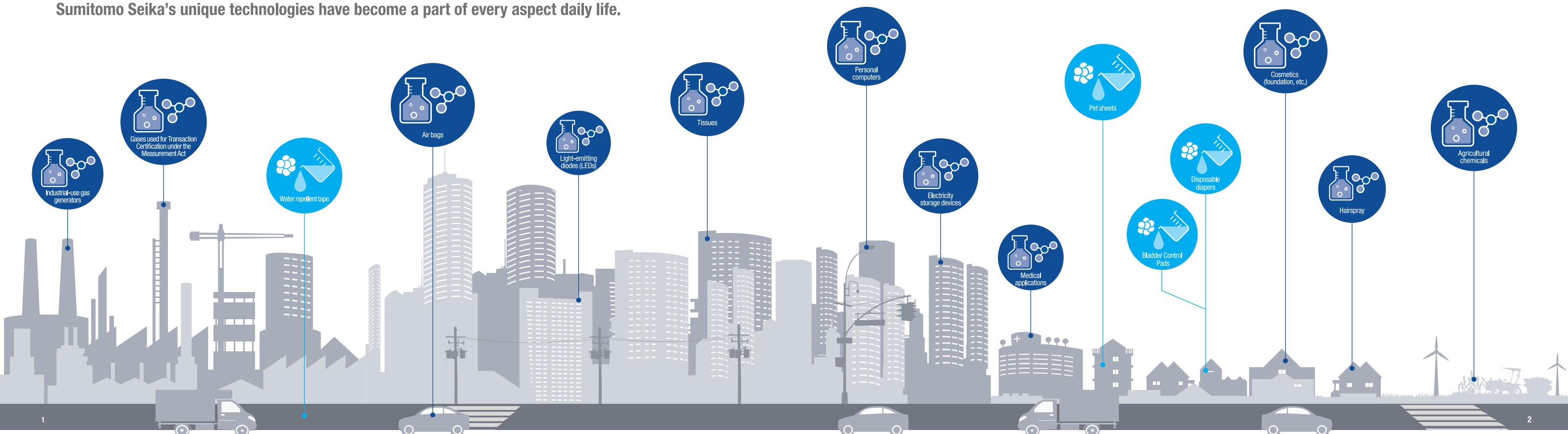


## Functional Materials

The products, services, and technologies of our Functional Materials businesses are used in a wide range of fields, including medical, environmental, life amenity, and energy.

In the chemical field, which has a variety of functions within it, expanding our business based on Sumitomo Seika's key technical strength, i.e. "thickening" and "binding" in function, and "polymerization", "organic synthesis", and "fine particle" in technology, we contribute to society in the areas of "medical care and daily living", and "the environment and energy". Our products are widely applied among everyday necessities including hair gels, cosmetics such as foundation, lithium ion secondary batteries for smartphones and electric vehicles, and coating agents for fences and shopping carts. In the gas field, Sumitomo Seika's gases come in a variety of forms to meet the diverse needs of various industrial sectors, including specialty gases used as analytical standards in environmental monitoring, electronics gases for deposition in the semiconductor fabrication process, and chemical gases for medical and industrial applications and food additives, and other gases that are not bound by conventional definitions. Moreover, offering the unique feature of being chemically synthesized, our gases enjoy high popularity throughout the world.

Sumitomo Seika's unique technologies have become a part of every aspect daily life.





## Enabling water absorption capability to be controlled according to users' specific applications, our AQUA KEEP super absorbent polymer features makes people's lives more convenient and comfortable with Sumitomo Seika's proprietary technology

Sumitomo Seika has long been involved in research and development of super absorbent polymers. These efforts have borne fruit in the form of AQUA KEEP super absorbent polymer, which is capable of absorbing and retaining up to around several hundred times its weight of water. Our proprietary technology applied to AQUA KEEP enables us to control its water absorption capability according to individual users'

specific needs. This technology has been incorporated into a wide variety of products, from everyday necessities such as disposable diapers and pet sheets through industrial products such as water repellent materials for power and optical cables. With production bases in Japan, South Korea, Singapore and France, we have a system for supplying purpose-matched products anywhere in the world.



## Whatever forms it may take, our super absorbent polymer consistently demonstrates its superior capabilities.

With variable water absorption performance, our AQUA KEEP super absorbent polymer delivers its superior capabilities in every region of the world, no matter what product it is formed into.

### Disposable Diapers

Used as an absorbent in disposable diapers, AQUA KEEP plays a vital role in realizing the fundamental capability of this hygiene product to "rapidly absorb liquid and never release it." Its high liquid-absorbing ability also keeps the surface of a disposable diaper dry and smooth whilst making it possible to design diapers that are thinner and more compact.



### Water Repellent Tape for Power and Optical Cables

Even when power and optical cables become damaged, application of tape that has been treated with AQUA KEEP allows the water-absorbing resin to instantly take in moisture and expand to block any further water from getting in, thereby preventing cable breakage and reduced functionality. This special capability to "absorb water and expand instantly" is highly rated by users.



### Pet Sheets

In pet sheets, AQUA KEEP absorbs urine efficiently to maintain a clean environment for households with pets. Our proprietary technology is utilized for "spot absorption," which prevents urine from spreading and getting on pets' paws.

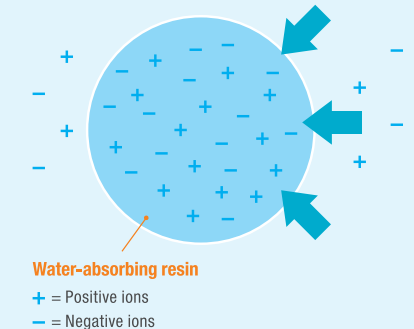


## Super Absorbent Polymer AQUA KEEP

### Advanced technology and know-how

The greatest benefit of using AQUA KEEP is the ability to flexibly control the amount and rate of water absorption and the particle size, which is made possible through our proprietary production technology (an inverse suspension polymerization process). Super absorbent polymers are required to have two different capabilities: one is to absorb an abundance of water ("higher absorption capacity") and the other is to retain the absorbed water under load ("higher absorption capacity under load") and, until now, there has had to be a trade-off between the two capabilities. However, by significantly improving the polymerization process and optimizing the polymer structure, we have been able to realize higher capability in terms of not only "higher absorption capacity" but also "higher absorption capacity under load." Furthermore, we have established an innovative production technology that allows flexible control of the two capabilities at a high level.

How osmotic pressure is used to absorb water







Ranging from personal care products for a convenient lifestyle and industrial materials such as high-performance adhesives and rubber products through battery and energy materials, we will provide new value by making full use of our technology to solve social issues.

### Adhesives



Our water-based emulsion is environment-friendly and is mostly composed of thermoplastic resins. By selecting the most appropriate raw materials, our emulsion offers superior adhesion performance for various base materials (glass fiber, resin, paper, metal, carbon fiber, etc.).

### Cosmetics



The unique characteristics of our water-soluble resin and spherical particles, which have been developed using our proprietary technology, give them the ability to meet the varied demands of users of cosmetics such as hair gel/cream and foundation.

### Coating Agents



Produced using our superior pulverizing and compounding technologies, Sumitomo Seika's powder coating agents for fluidized bed coating and electrostatic coating are highly rated in the marketplace. Their outstanding resistance to weather and salt damage for aesthetic preservation over extended periods and their high adhesion to metals are guaranteed to satisfy users' demands.

### Batteries



Electrodes for lithium ion secondary batteries, which are in high demand for use in smartphones and electric vehicles, are made by adhering electrode materials onto metal foils using a binder. Our water-based binder has the strong adhesion force, which helps to enhance the performance of lithium ion secondary batteries.

### Polymerization Technology

The functions of functional polymers can vary significantly depending on their production methods, even if their molecular structures are the same. By combining fine control of the polymerization process with our proprietary polymerization technology, we are able to provide unique products of uniform quality. Our attention to environmental load, safety and ease of handling when in use (ease of dissolution, low dust emission, etc.) has earned high trust in our products from many users.



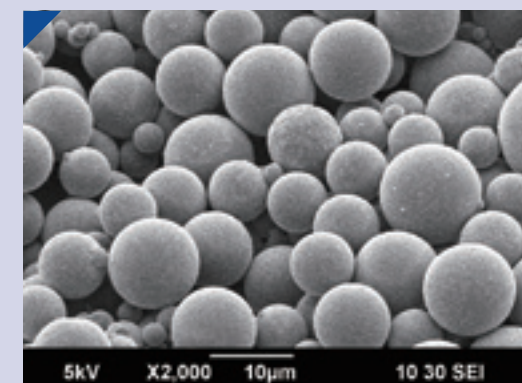
### Emulsion Technology

Emulsification is the process of evenly dispersing materials in water. We use this technology to process thermoplastic resins such as synthetic rubber and synthetic resin into various types of latex or emulsions. Because the materials are dispersed in water (easy to handle), our products demonstrate high fluidity, which makes it possible to evenly spread them to every part of target base materials such as fibers. Their low environmental load is also highly rated by customers.



### Technology for Making Fine Particulate Polymers

We have constantly honed its technology for processing various olefin resins, such as polyethylene, into spherical shapes. Due to the unique characteristics offered by their sphericity, these resins demonstrate superior fluidity and dispersion quality and are being put to a wide variety range of applications, including cosmetics materials, delustering agents for coatings, lubricants, and adhesives. We are also working on new technology for processing of newly developed thermoplastic resins such as eco-friendly biodegradable resins.



### Organic Sulfur Compound Synthesis Technology

We excel in technologies for synthesizing various sulfur compounds into a wide variety of organic sulfur compounds for use in pharmaceuticals and advanced functional materials, such as lithium ion secondary batteries used in smartphones and electric vehicles. We also use these technologies to develop new functional materials and we are capable of producing them on an optimal scale that is appropriate for customers' applications and desired quantities of lots.







Tapping into our advantage as a “supplier of chemically synthesized gases” to develop new products and markets, we will continue to be a leading creator that announces new products and applications.

In this segment, we deal in a wide variety of products, covering everything from high-purity special material gases for fabrication of semiconductors, such as LSIs, flash memories, LEDs, LCDs, and solar cells through specialty gases required for environmental monitoring and industrial chemicals using gases that contain sulfur compounds. We also produce and distribute PSA (pressure swing adsorption) gas

generators and supply recovery and purification systems for various gases, including hydrogen, helium, and carbon dioxide. Material gases for semiconductor fabrication are in high demand in Asian markets and we are fulfilling users’ requests through establishment of production and distribution centers in Taiwan, South Korea, and China.



Our products underpin the foundations of various aspects of life and society, from medicine/health and electronics through environment/energy conservation.

### Specialty Gases

Serving as analytical standards for various types of environmental monitoring, “standard gases” are pivotal in almost every industry. Achieving high reliability for superior concentration stability, our specialty gases are put to a wide variety of applications, from R&D through production, to control air pollution, factory smoke emissions, and automobile exhaust emissions.



### Industrial Chemicals

We produce various types of sulfur-based industrial chemicals. Sulfolane serves as a cleaning solvent for resists used in the semiconductor fabrication process and as a solvent for refining and extracting various aromatic compounds, while thiophenol and thionyl chloride are used as materials for producing pharmaceuticals, agricultural chemicals, and numerous compounds.



### Electronics Gases

Our high-purity special material gases are used for deposition, etching, and other processes for semiconductor devices such as LSIs and flash memories. Undergoing the ultimate in refinement and impurity reduction, our electronics gases enjoy high popularity worldwide for their superior quality.



### Gases for Medical Applications and Food Additives

We deal in a diverse range of gases, including those for medical and industrial applications and food additives. Our mainstay nitrous oxide (laughing gas) is used for general anesthesia during medical operations and as a foaming agent for whipped cream in the food field.



### PSA

PSA gas generators utilize differences in adsorption properties among various gases to separate target gases through an alternating cycle of pressurization and decompression. We are capable of refining many types of gases using PSA gas generators. Separated gases are then applied to a wide variety of products, from foods/beverages (e.g. beer) through industrial products such as fuel cell vehicles (FCVs).



### Our unique and varied initiatives all stem from our strong commitment to serving users.

The source of our technological prowess lies in our ability to deliver quality materials for semiconductor devices that achieve high-purity, killer impurity reduction, ultra-micro analysis of impurities, and our willingness to listen to what customers have to say in order to build the functions they desire into finished products. Our super-high-purity ammonia gas, for example, is contributing to development of high-performance blue and white LEDs. Going forward, we hope to contribute our services to future growth of the high technology industry by determining trends in the technological roadmap of semiconductor devices so that we can supply a seamless flow of new products to the market.



Another unique initiative is our marketing through medical representatives (MRs). Specializing in collecting and communicating information on pharmaceutical quality and safety, MRs attend academic medical conferences and meet with experts to gather information on the efficacies and adverse reactions of drugs and then provide physicians who use medical gases with such information. We take this extra step out of our sincere desire to reassure doctors and hospital staff about the use of medical gases and to contribute to medical development.





# Technical Capabilities

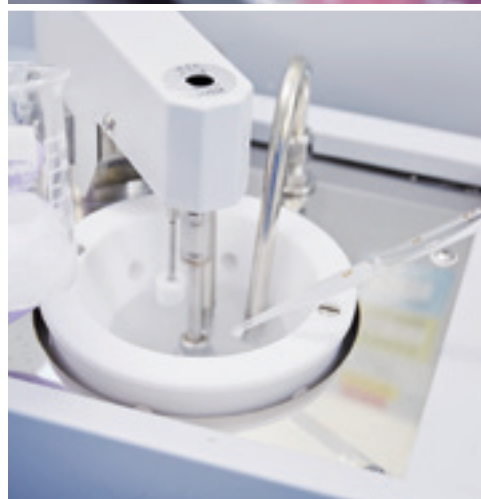
## Super Absorbent Polymers

In our quest to help provide healthy and comfortable living for people the world over, we are constantly engaged in developing new products through improving our proprietary processes and enhancing the performance of absorbent polymers through integration of technologies from different fields. We are also involved in R&D and technical services on a global scale through efforts such as locating user needs at an early stage and offering solutions in a timely manner through close cooperation with our international sites.

## Functional Materials

Making the most of our core technologies of polymerization, fine synthesis, and emulsification, together with state-of-the-art technologies from universities and other external organizations,our enthusiastic researchers are working on R&D of water-soluble polymers, fine particles, and latex/emulsions that serve as the foundations for functions/capabilities of consumer goods in the cosmetic and toiletry categories and of industrial products in the electronic materials and environment/energy categories.

In the three business domains of “electronics,” “life science,” and “environment and energy conservation,” we develop gas-related products by utilizing technologies for separating/synthesizing/mixing gases, achieving high purity, conducting microanalysis, and designing gas generation/collection systems. We are also expanding the range of potential applications for gas-based functional materials and developing an even broader range of gas-related equipment.



# Safety/Environment/Quality Management

## Basic Policies on Sustainability

The Sumitomo Seika Group believes that it assumes corporate responsibility for contributing to resolving globally vital social issues from a long-term perspective. To fulfill this responsibility, we have established the “Basic Policies on Sustainability” and promote sustainability management.

We also promote Responsible Care activities, which are essential for chemical manufacturers, in accordance with these basic policies, and work to improve the quality of occupational safety, environmental conservation, chemical safety, and quality assurance.

## Responsible Care



A number of chemical companies take voluntary actions to improve environmental, safety, and health performance throughout the entire process from development, production, and physical distribution through use, final consumption, and disposal/recycling of chemical substances. “Responsible Care” is a global initiative for making the process of such efforts public through dialogues and communication with society. It is now practiced in close to 60 countries and regions.

## Quality Assurance

Guided by the basic policy of “conducting thorough quality management of our products and services so that our customers can use them to their satisfaction and with confidence,” we have established a Group-wide quality assurance system. We also maintain and make constant improvements to this quality assurance system by having all of our sites certified to ISO 9001 international quality management system standard.

Our products range from general industrial chemicals and materials for pharmaceuticals and cosmetics through electronic and semiconductor materials. Depending on customers’ specific applications, the required contents and levels of quality assurance can differ even for the same compound. Every single organization within the Group cooperates to ensure that this quality management system functions efficiently in pursuit of quality assurance activities that put the primary focus on customer satisfaction.



# Group Network

## Seamless Network of Engineering and Production Centers

Sumitomo Seika's engineering prowess is highly valued in the international markets that we serve, including those in Asia and European countries as well as Japan. Our production centers are strategically located around the globe.

### Himeji Works



Himeji Works is our main plant for super absorbent polymers and functional chemicals. At this mother plant for our super absorbent polymer AQUA KEEP, we make constant efforts to enhance the product's quality and capabilities, in collaboration with our international production centers. We also produce functional polymers and latex/emulsion products that apply our proprietary polymerization and emulsion technologies.

Conveniently located in the Harima Coastal Industrial Zone on the Seto Inland Sea, Himeji City, Hyogo Prefecture, this production center boasts sea and land transport networks.

- Material Development Laboratory
- Production and Process Engineering Laboratory

### Befu Works



Built on site of the company's birthplace, our Befu Works is responsible for production of functional chemicals and gases. Some of its products and technologies that have achieved worldwide repute include inorganic/organic sulfur compounds, which are used as intermediates or materials for pharmaceuticals and agricultural chemicals; synthesis technology for organic halogen and other compounds; and high-purity technology for electronics gases and specialty gases.

Sited near the middle of southern Hyogo Prefecture in the eastern area of the Harima Coastal Industrial Zone on the Seto Inland Sea, this historic plant began operations in 1944.

- Material Development Laboratory
- Production and Process Engineering Laboratory

### Chiba Works



Our Chiba Works is responsible for production of gases (standard gas, mixed gas, gas for semiconductor fabrication) and functional chemicals (powder resin products). It has long been one of the largest producers in Japan of standard gases used for analytical standards in environmental monitoring, and FLO-THENE used in coating agents, and their quality and production engineering standards are among the highest in the world.

Conveniently located in the Tokyo Metropolitan area, about 30 km from the city center, its proximity to Narita International Airport, Makuuari New City, and Tsukuba Science City helps to ensure access to new information.



Sumitomo Seika Singapore



Sumisei Taiwan Technology



Sumisei Chemical



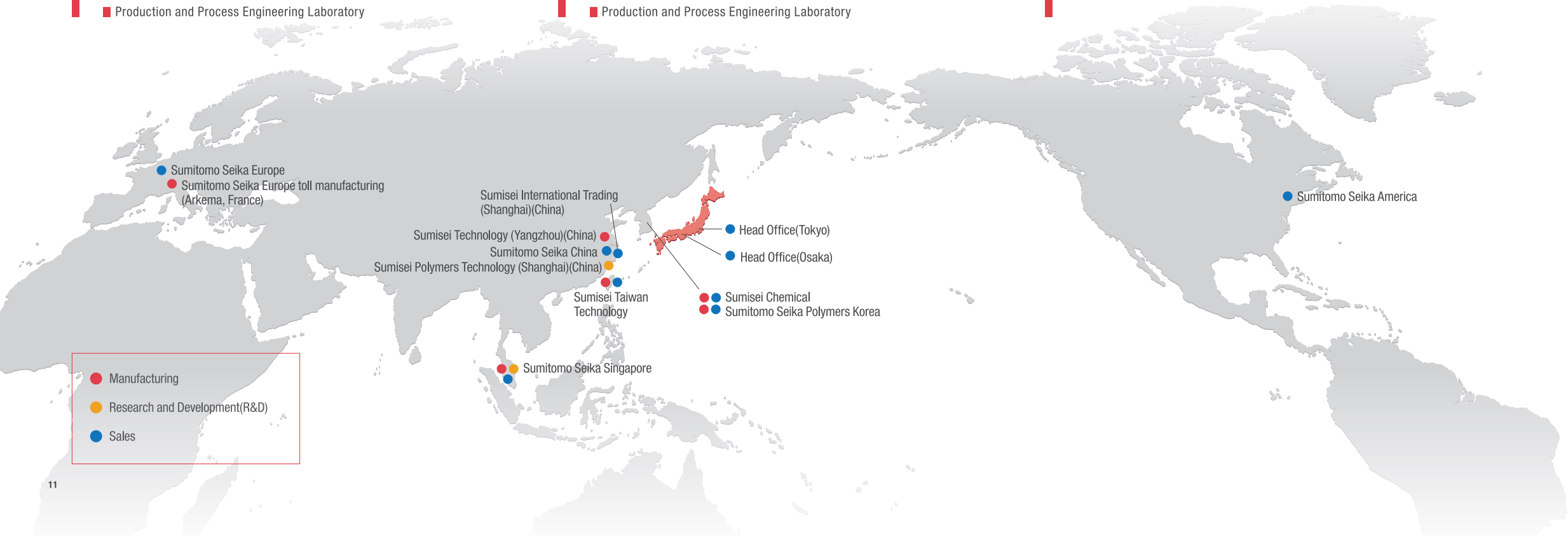
Sumitomo Seika Polymers Korea



Sumisei Technology (Yangzhou)



Sumitomo Seika Europe toll manufacturing







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# COMPANY OUTLINE

## Capital (2023/7)

¥9,714 million

## Employees (2023/3/31)

Consolidated	1,412
Non-Consolidated	1,035

## Directors & Officers (2023/6/23)

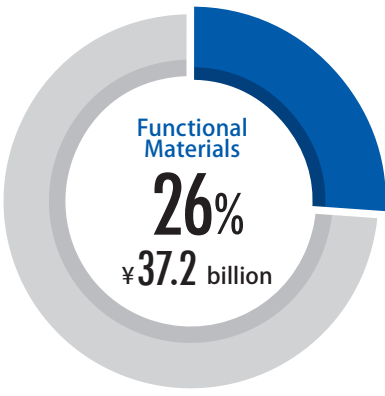
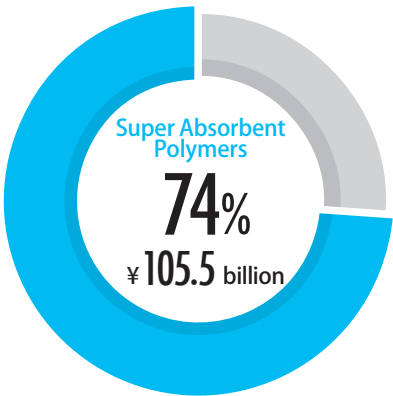
<b>Directors</b>	
Representative Director President	OGAWA Ikuzo
Representative Director	HAMATANI Kazuhiro
Director	MURAKOSHI Masaru
Director	TOYA Takehiro
Director	MACHIDA Kenichiro
Director (Non-Executive Director)	SHIGEMORI Takashi
External Director	MIURA Kunio
Director (Full-time Audit and Supervisory Committee Member)	MICHIBATA Mamoru
External Director (Audit and Supervisory Committee Member)	KAWASAKI Masashi
External Director (Audit and Supervisory Committee Member)	KISHIGAMI Keiko
External Director (Audit and Supervisory Committee Member)	YOSHIIKE Fujio

<b>Officers</b>	
Chief Executive Officer	OGAWA Ikuzo
Senior Managing Executive Officer	HAMATANI Kazuhiro
Managing Executive Officer	SHIGETA Hiromoto
Managing Executive Officer	MURAKOSHI Masaru
Managing Executive Officer	MASUMOTO Hironobu
Managing Executive Officer	TOYA Takehiro
Managing Executive Officer	MACHIDA Kenichiro
Managing Executive Officer	UEMURA Kazuhisa
Managing Executive Officer	KURIMOTO Isao
Managing Executive Officer	KOBAYASHI Hiroshi
Executive Officer	YAMAGUCHI Kiyoshi
Executive Officer	MAEDA Nobuhiro
Executive Officer	AOYAMA Satoshi

## Company History

July 1944	Sumitomo Taki Chemical Co., Ltd. is established as a joint venture between Sumitomo Chemical Co., Ltd. and Taki Fertilizer Co., Ltd. (currently Taki Chemical Co., Ltd.); Befu Works (Head Office factory) begins operations.
April 1946	Company name is changed to Befu Chemical Industry Co., Ltd.
June 1960	Seitetsu Kagaku Co., Ltd. is established as a joint venture between Fuji Steel Co., Ltd. (currently Nippon Steel Corporation) and Sumitomo Chemical Co., Ltd.; Himeji Works begins operations.
October 1961	Befu Chemical Industry Co., Ltd. and Seitetsu Kagaku Co., Ltd. merge and the company name is changed to Seitetsu Kagaku Co., Ltd.
June 1962	Begins design, manufacture and sales of engineering and chemical equipment.
October 1963	Begins manufacture and sales of powered plastics.
December 1963	Begins specialty gas business.
April 1969	Chiba Works begins operations.
July 1979	Opens multi-purpose facility for production of fine chemicals.
March 1983	Begins marketing PSA oxygen gas generators; opens facility for production of super absorbent polymers.
June 1987	Opens facility for production of gases for high-grade semiconductors.
October 1989	Company name is changed to Sumitomo Seika Chemicals Company, Limited.
December 1992	Opens multipurpose facility for production of polymers.
March 1995	Begins manufacture and sales of cellulose products.
December 1996	Befu, Himeji, and Chiba Works acquire ISO 9002 certification. (Acquires ISO9001 certification across the board in December 2002)
February 1997	Opens large-scale versatile synthesis facility for production of fine chemicals.
June 1997	The engineering department (PSA systems) acquires ISO 9001 certification.
March 1999	Begins manufacture and sales of super absorbent polymers in Singapore.
July 2004	Befu, Himeji and Chiba Works are certified under ISO14001.
April 2006	Begins manufacture and sales of electronics-use gases in Taiwan.
December 2007	Establishes sales subsidiaries in Singapore, USA, and Belgium.
April 2008	Acquires super absorbent polymer business from Arkema, France.
June 2008	Establishes a subsidiary in Korea for the manufacture and sales of electronics-use gases.
February 2009	Befu, Himeji, and Chiba Works acquire JISHA OSHMS (Occupational Safety and Health Management System) Standards certification.
March 2011	Establishes a sales subsidiary in China.
April 2011	Establishes a subsidiary in China for the manufacture and sales of electronics-use gases. (Terminates in 2019.)
July 2014	Establishes a subsidiary in Korea for the manufacture and sales of super absorbent polymers.
April 2019	Establishes a company providing technical services in China.
July 2020	Adds regional headquarters function to the sales subsidiary in China.
March 2021	Establishes a trading company in China.
October 2021	Begins Contract Manufacturing Service of High-Performance Materials in China.
June 2023	Establishes a subsidiary for the purpose of research on technical trend.

## Sales Fiscal 2022 Consolidated ¥143.0 billion



※In addition to the above, there are other businesses (0.2% of net sales).

# PRODUCT LIST

## Super Absorbent Polymers

### 1. Water-absorbent Polymers

Products Name	Major Application
AQUA KEEP (sodium polyacrylate-based super absorbent polymer)	Disposable diapers, other personal hygiene products, and industrial materials

## Functional Materials

### 1. Water-soluble Polymers

Products Name	Major Application
PEO (polyethylene oxide) (non-ionic water-soluble resin)	Formation aid for papermaking, adhesives, binder for ceramics
AQUPEC (cross-linked carboxyvinyl polymer)	Thickener for cosmetics, pharmaceuticals and paints; sedimentation prevention agents, and gelling agents
AQUPAANA (partially neutralized polyacrylic acid)	Thickener for poultice material (pap and cooling sheets)
HEC (hydroxyethyl cellulose) (water-soluble thickener)	Thickener for paint and cosmetics, Additives for polymerization
AQUACHARGE	Binder for electrodes such as lithium-ion secondary batteries

### 2. Water-absorbent Polymers

Products Name	Major Application
AQUA CALK (thermoplastic hydrophilic polymer)	Water adsorption sheets, solidifier for waste liquid, air freshening / deodorizing agents, cosmetics

### 3. Latex & Emulsion Products

Products Name	Major Application
SEPOLSION G (olefinic resin emulsion)	Convergent agent for glass fiber
SEPOLSION PA (copolyamide aqueous emulsion)	Inter-lining, adhesive for automotive seats
ZAIKTHENE (self-emulsifying type olefinic resin emulsion)	Heat-sealing adhesive for metal, paper, etc., ink binder
SEPOLEX CSM-N (chlorosulfonated polyethylene latex)	Convergent agent for glass fiber, adhesive agent between rubber and fiber reinforcement

### 4. Powdered Plastics

Products Name	Major Application
FLO-THENE (powdered polyethylene)	Coating, Hot-melt adhesive
FLO-THENE UF (ultra-fine powdered polyethylene)	Modifier for FRP, dispersing agent for fillers, additives and pigments, Binder for carbon
FLOBLEN (powdered polyethylene)	Sintered molding, Coating
SPHERICAL POWDER	Additive for cosmetics and paints, modifier for resins

### 5. Fine Chemicals

	Products Name	Major Application	CAS No
Pharmaceuticals-related Products	Bromovalerylurea	Bulk substance for hypnotics and sedatives(Japanese Pharmacopoeia)	496-67-3
	PCTP(4-chlorothiophenol)	Intermediate for pharmaceuticals and functional products	106-54-7
	Various other important intermediates for pharmaceuticals (several dozen products)		
Various Additives	DPDS(diphenyl disulfide)	Additive for functional polymers	882-33-7

### 6. Electrolyte Solvents

Products Name	Major Application	CAS No
Sulfolane(tetrahydrothiophene-1,1-dioxide)	Electrolyte solvents, Additive	126-33-0

7.Gas Chemicals

(1).Industrial Chemicals

Products Name		Major Application	CAS No
Sulfur compounds	Thiophenol	Raw materials for pharmaceuticals, agricultural chemicals, and organic synthesis	108-98-5
	Thioanisole	Raw materials for organic synthesis	100-68-5
	Sulfolane (tetrahydrothiophene-1,1-dioxide)	Solvent for removal of Benzene / Toluene / Xylene, reaction solvent, cleaners for semiconductors	126-33-0
	SFS(sodium formaldehyde sulfoxylate)	Discharge agent, polymerization accelerator	149-44-0
Chlorinated compounds	Thionyl Chloride	Chlorinating agent for dyes, pharmaceuticals, agricultural chemicals, etc.	7719-09-7
	Sulfuryl Chloride	Chlorinating agent for pigments, agricultural chemicals, etc.	7791-25-5
Aqueous ammonia		NOx reduction, pH adjusters	1336-21-6

(2).Chemical Gases

Products Name		Major Application
Industrial raw material gases	H2S, SO2	Metals refining, Glass surface treatment
Gases for medical devices	Cryogas	Refrigerant for Cryoablation
Gases used in daily life	SO2, N2O	Cornstarch, food additives

8.Fine Gases

(1).Electronic Gases (Semiconductor Gases)

Products Name		Major Application
Electronic gases (Semiconductor gases)	N2O,NH3,CO,NO,B2H6,SiH2Cl2 C3H6,C3H8,SO2, etc.	Epitaxy, CVD, doping, etching, and cleaning

(2).Specialty Gases

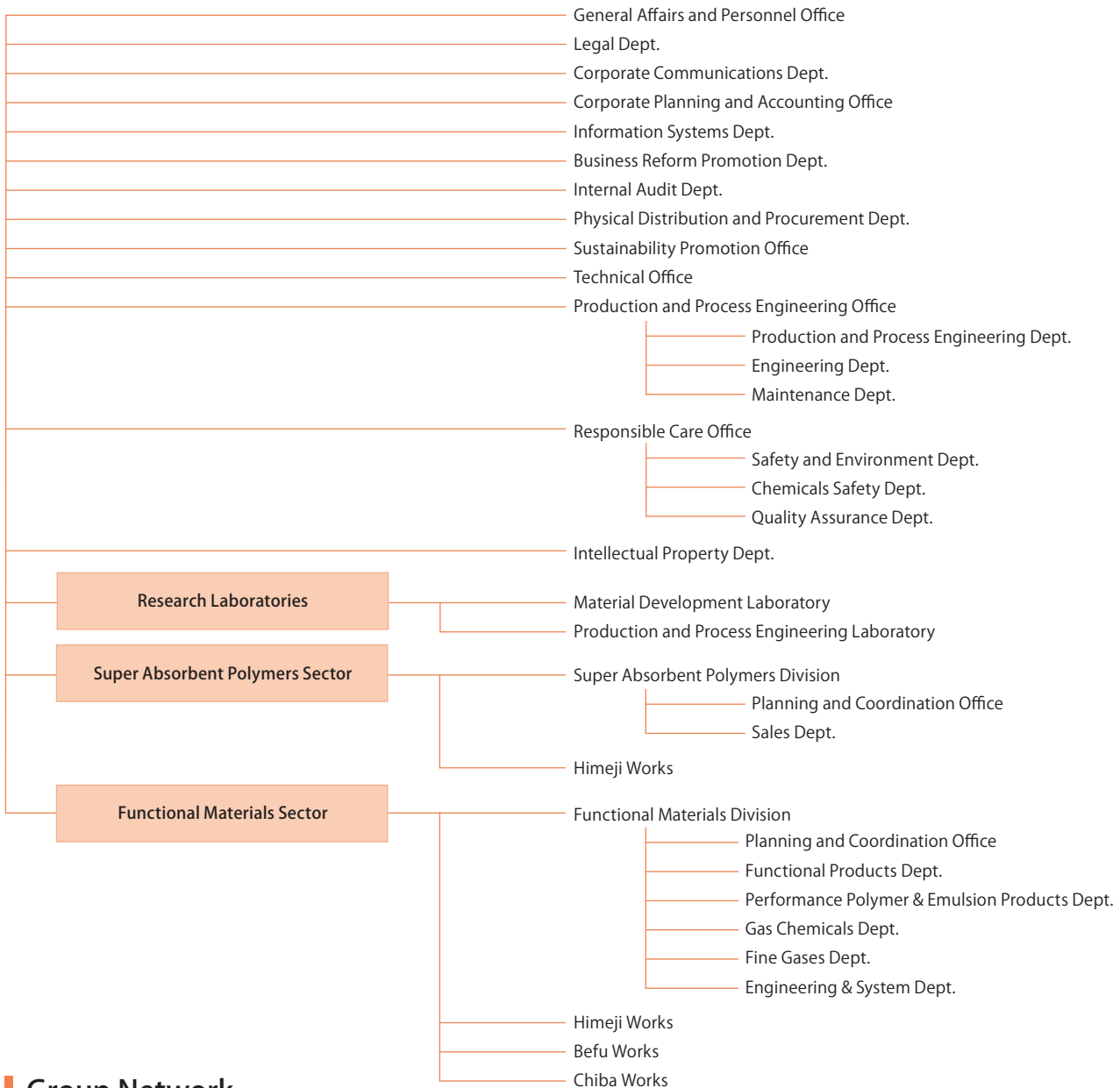
Products Name		Major Application
High-purity gases	N2,Air,H2,O2,He,Ar,CH4,CO,NO,Ne,Kr,Xe, etc	For various analysis and tests, checking the zero point on analysis instruments, and as carrier gases
Mixed gases	CO+N2,CO2+He+N2,CH4+Ar,CO2+O2, H2+CH4+C3H8, etc	For fuel gases, gas lasers, and testing deoxidation of iron ore
Standard gases	CO/N2,NO/N2,CO2/N2,SO2/N2,C3H8/N2,CO2+O2/N2,NH3/N2,H2S/N2, etc. Standard gases for atmospheric and ecological environment measurements (HAPs,PAMS,NMOG,IAP, etc.)	For measuring air pollution levels, various plant controls, monitoring odors, and calibration of medical and other equipment. For measurement of toxic air pollutants,photochemical smog monitoring stations, measurement of indoor air pollution,and measurement of compliance with new automotive exhaust regulations.
Pressure regulators		Various type of gas pressure regulators

9.Engineering (PSA System PSA Gas Generator)

Products Name		Major Application
PSA	PSA oxygen gas generators	Steelmaking, copper and zinc smelting, pulp bleaching, bioengineering, waste water treatment, ozone generating systems, glass melting furnaces, and incinerators
	PSA nitrogen gas generators	Chemical seals, anti-oxidation seals, atmospheric gas, tire curing
	PSA hydrogen gas purification systems	Purification of hydrogen from cracking methanol and natural gas, hydrogen purification of coke oven gas and off-gas from petroleum refining
	High purity hydrogen gas generators	Optical glass fiber, float glass, hydrogenation and metal heat treatment
	PSA carbon dioxide gas recovery and purification systems	Carbon dioxide recovery and purification of exhaust gas from steelmaking, coke oven gas and combustion exhaust gas
	PSA argon gas recovery and purification systems	Argon gas recovery and purification of off-gas from vacuum degassing furnaces and silicon monocrystal growth furnaces
	PSA helium gas recovery and purification systems	Helium gas recovery and purification of off-gas in optical fiber production, that in semiconductor production, purge gas of transfer-filling
	Various types of PSA gas purification and separation systems	Recovery and purification of CH4,CO,Kr, etc.
	Solution Providing(Response to On-site service for gases through PSA gas generators, recovery and purification systems and purification and separation systems)	
Chemical Plants	Liquefied Carbon Dioxide Plants	Recovery of off-gas from petroleum refining, beer fermentation, etc.
	Hydrogen Sulfide Plants	Raw materials for chemical products
	Sulfur Dioxide Plants	Metal smelting



## Organization



## Group Network

### Affiliate Companies in Japan

Company Name	Lines of Business
Seika Techno Services Co., Ltd.	Various Services
Seika Research Co., Ltd.	Conducting Research on Technical Trend

### Global Network

Company Name	Country	Lines of Business
Sumitomo Seika Singapore Pte. Ltd.	Singapore	Manufacturing and Sales of Super Absorbent Polymers
Sumisei Taiwan Technology Co., Ltd.	Taiwan	Manufacturing and Sales of Electronics Gases
Sumisei Chemical Co., Ltd.	Korea	Manufacturing and Sales of Electronics Gases
Sumitomo Seika Polymers Korea Co., Ltd.	Korea	Manufacturing and Sales of Super Absorbent Polymers
Sumitomo Seika (China) Co., Ltd.	China	Providing regional management services such as administration and finance to its subsidiaries in China Sales of Super Absorbent Polymers and Functional Materials Products
Sumisei Polymers Technology (Shanghai) Co., Ltd.	China	Technical Service and Market Research
Sumisei International Trading (Shanghai) Co., Ltd.	China	Sales of Super Absorbent Polymers
Sumisei Technology (Yangzhou) Co., Ltd.	China	Contract Manufacturing Service of Chemical Products
Sumitomo Seika Europe S.A. /N.V.	Belgium/France	Manufacturing and Sales of Super Absorbent Polymers and Functional Materials Products
Sumitomo Seika America, Inc.	USA	Sales of Functional Materials Products

