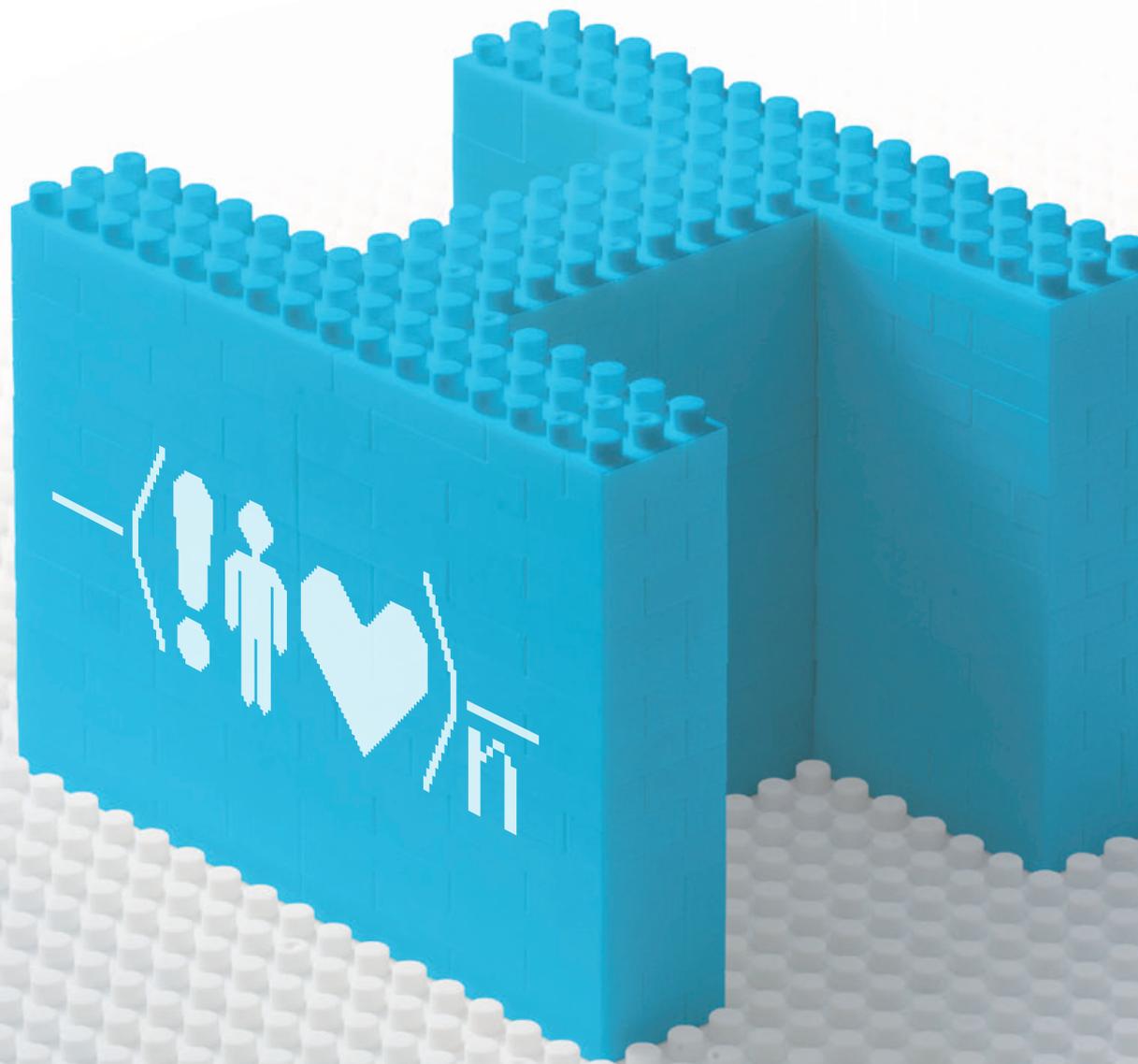


HODOGAYA CHEMICAL

Corporate Profile

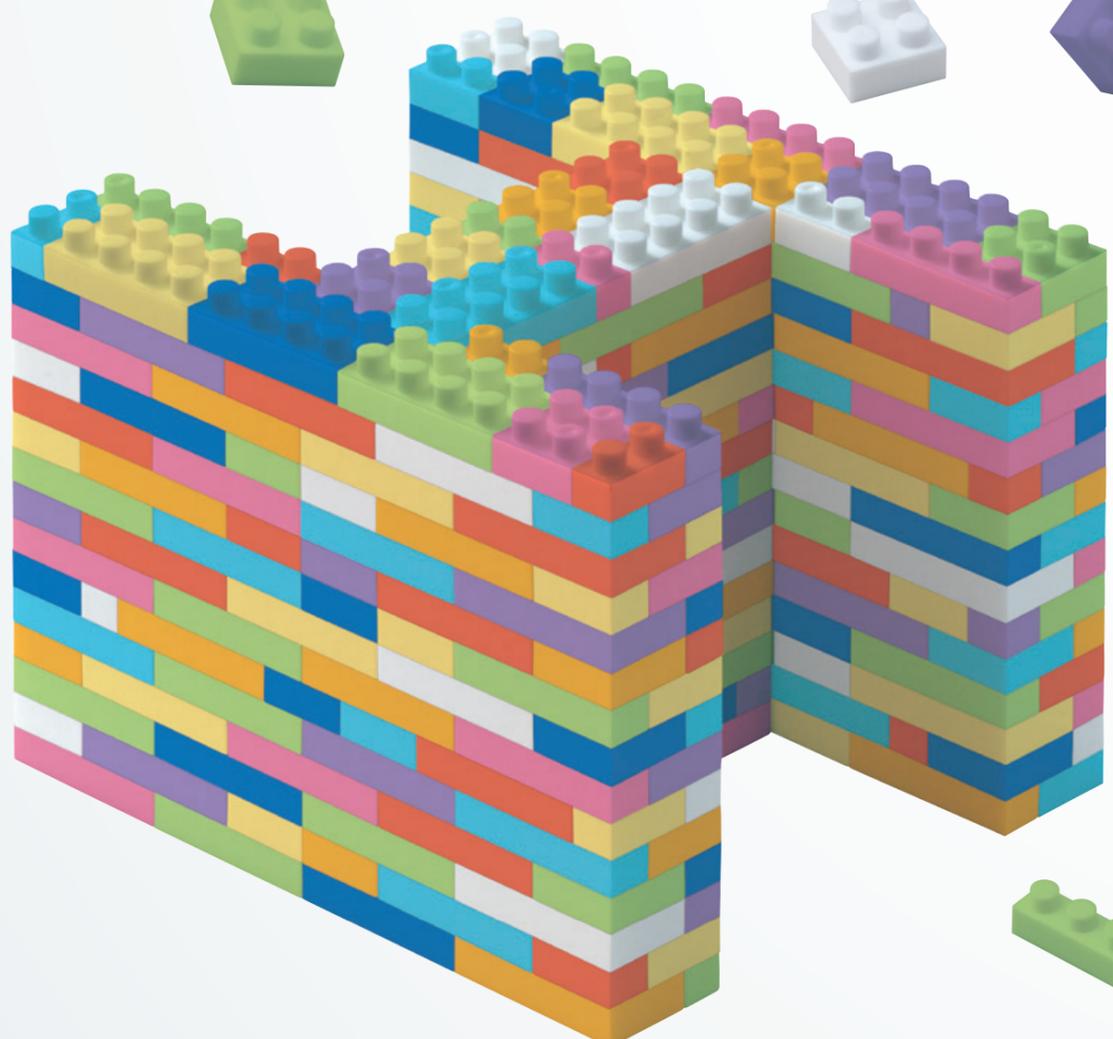


Responding to society's needs with dedication and a flexible, creative approach

A strong track record

The ability to integrate technologies and strengths

The power to evolve



The creativity and dedication that go into making polymer materials

The Hodogaya Chemical Group manufactures polymer-based materials with a keen awareness of creating new things and a deep commitment to meeting the requests of its customers.

Group Management Philosophy

Through constant innovation of chemical technology, we will provide high-quality products and services throughout the world and contribute to the creation of an environmentally conscious society.

Helping society develop through continuous innovation

Since its establishment in 1916, Hodogaya Chemical has strived continually to develop a wide spectrum of products and businesses. As a result, it has been a technological leader for nearly a century.

In response to demands for ever more advanced technological innovations, the Hodogaya Chemical Group has adjusted its business structure, shifting its focus to a variety of specialty products such as functional colorants and specialty polymers. It is currently strengthening this business structure even further.

Given the increasingly rapid globalization of societies and economies worldwide, however, the Group's operating environment is undergoing dramatic change. To deal with these circumstances, we aim to be **a corporation that steadily supplies "Only One/Number One" materials in the global and niche markets.** Accordingly, we are working to enhance the Group's foundational businesses so that it can produce these new products and expand the businesses that can contribute to future growth.

All members of the Hodogaya Chemical Group are committed to creating products and services that benefit people as a way to contribute to the development of society and uphold our corporate social responsibility as a good corporate citizen. As we pursue these endeavors, we look forward to the support of the Group's stakeholders.



松本祐人

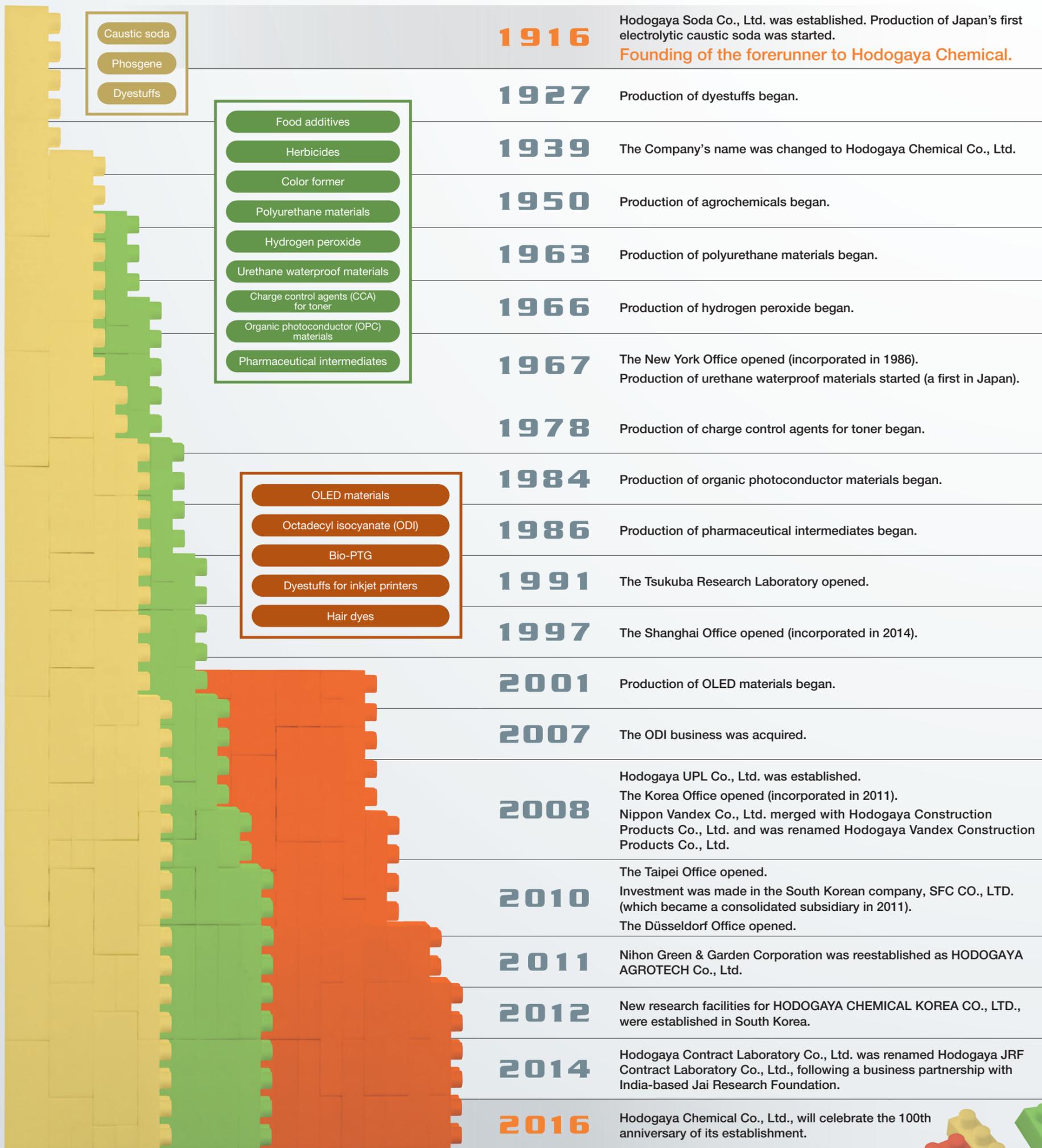
Yuto Matsumoto, President

A strong track record

From caustic soda to electronics materials, Hodogaya's history is the history of chemical technology



Hodogaya Chemical was founded in 1916 as the first company in Japan to manufacture caustic soda using an electrolysis method. It went on to manufacture phosgene, a raw material for specialty polymers such as polyurethane. From these accomplishments, Hodogaya Chemical built the foundation that has enabled it to become a chemical company benefitting society and people's lifestyles. From its early years to the present day, the Company has continued to create a wide range of products in response to the needs of the times, from dyes and agricultural chemicals to pharmaceutical intermediates, polyurethane materials and imaging materials. We look forward to meeting the needs of the present day by applying the experience and expertise we have built up over a history spanning 100 years.



The ability to integrate technologies and strengths

Three competitive advantages driven by three highly advanced core technologies

The Hodogaya Chemical Group is pursuing the concept of dynamic innovation as a group of companies that contributes to society and people's lifestyles by creating highly functional products with high added value. The Group makes this possible by combining the core capabilities it has built up over its long history based on organic synthesizing technologies: high-purification technology, development capability in functional materials, and evaluation technology for functional materials. It then integrates these three highly advanced core technologies with its strengths in value creation, research and development, and manufacturing technologies to produce "only-one/number-one" products that lead the industry.

What does chemistry mean to you?

Wisdom

A solid foundation of core technologies

High-Purification Technology

Applying advanced refining technologies to take high purification to the next level

The Hodogaya Chemical Group is pursuing highly purified raw materials that can be used in new fields and for constantly evolving applications. Accordingly, the Group is applying its advanced refining technologies to meet extremely strict technical requirements that exceed clients' expectations.

Development Capability in Functional Materials

Developing materials with new functions to make people's lives more comfortable and enriching

The Hodogaya Chemical Group aims to help people fulfill their hopes for lifestyles that are safe, secure, comfortable, and enriching. With this in mind, the Group offers new materials that feature a wide array of functions, while striving to open up all kinds of fresh possibilities for their use.

Evaluation Technology for Functional Materials

Renowned for its knowledge, experience, and skill, the Group supports the materials of the future with its advanced technologies.

The Hodogaya Chemical Group's products are trusted by customers for their highly renowned technologies. Our strong reputation has led to the creation of new designs and the reinvention of materials that are ahead of their time.

A group with the power to keep evolving

Value Creation

Value is generated through solutions for customers' problems.

The Hodogaya Chemical Group can accurately identify the needs of society and its customers, and then respond with dedication and innovation, creating high-added-value products by drawing on its extensive technological expertise.

Research and Development

Cutting-edge research targeting the technologies of the next generation

Leveraging state-of-the-art research facilities and advanced research capabilities honed over its long history, the Hodogaya Chemical Group carries out cutting-edge research projects that lead to the creation of entirely new value.

Manufacturing Technology

High-quality manufacturing with the greatest attention to the environment and safety

Having built a reputation for dependably supplying high-quality products while ensuring excellent cost-competitiveness, the Hodogaya Chemical Group has put in place a manufacturing system that is based on high standards for safety and the environment.

The power to evolve

Our businesses continue to evolve with the times

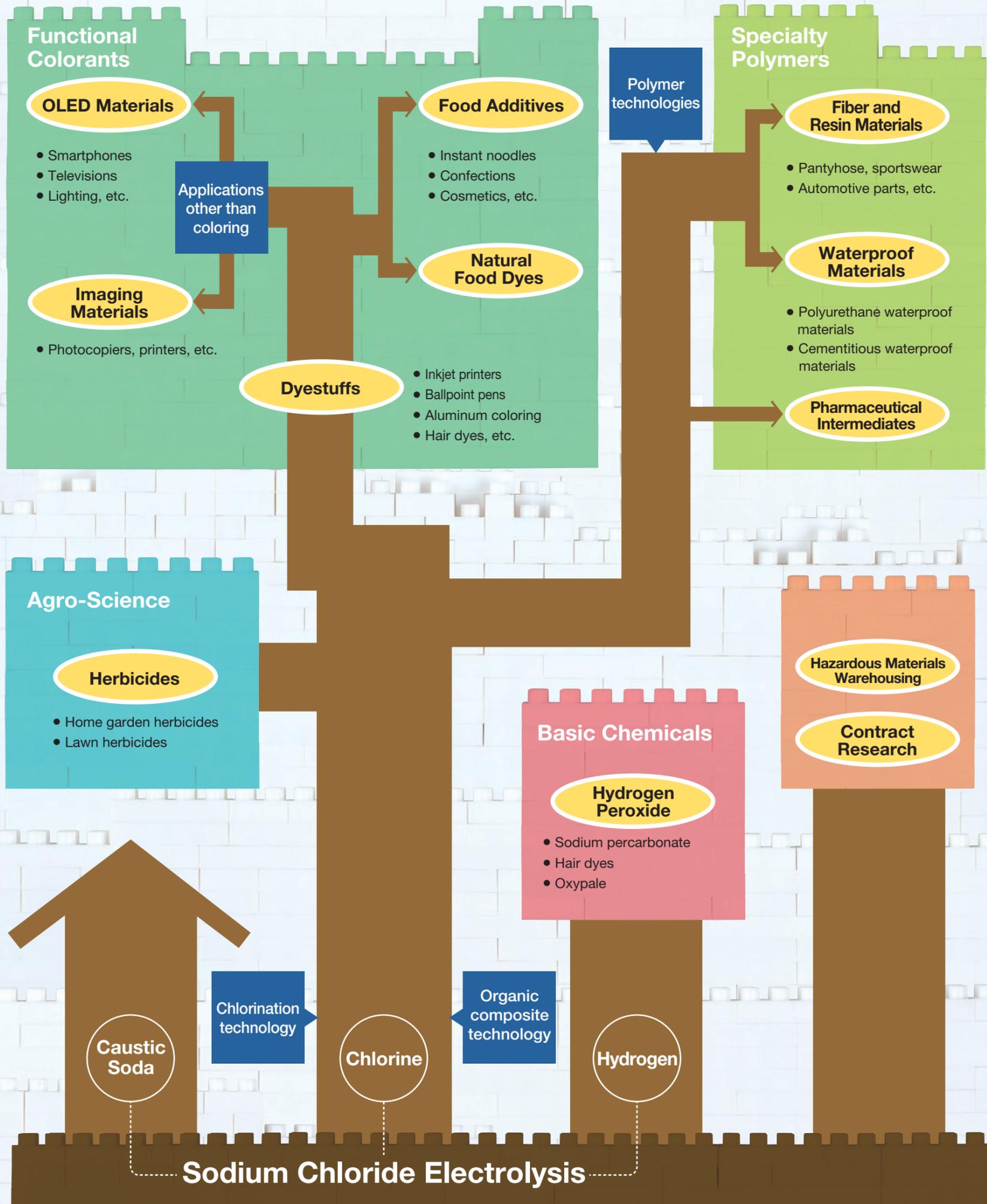
The Hodogaya Chemical Group has continued to evolve while responding to the needs of the times.

After starting out in the sodium chloride electrolysis business, the Group branched out across a wide array of technical applications and now leverages a diverse range of businesses and product groups. It has expanded into the fields of functional colorants, specialty polymers, basic chemicals, agro-science, and logistics, among others, and produces highly specialized products in each of these businesses. These specialties are playing a key role in enabling Hodogaya Chemical to build relations of trust with its customers.

Looking ahead, the Hodogaya Chemical Group will work to respond to the many diverse requests of its customers while continuing to evolve.

What does chemistry mean to you?

Unlimited potential



Three competitive advantages developed over a century



Production

Advanced manufacturing technologies

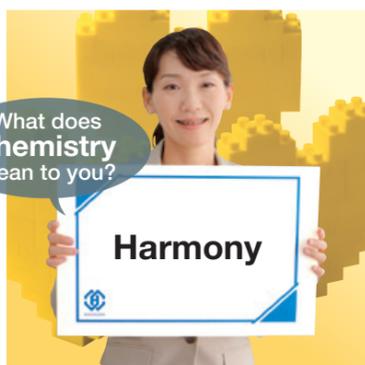
Value Creation

Value creation capabilities

Research & Development

R&D expertise

The Hodogaya Chemical Group leverages its value creation capabilities to solve issues for its customers, while drawing on its R&D expertise to perform original R&D, and applying its manufacturing technologies to dependably supply high-quality products. The Group's leading-edge technologies and expertise constitute its key competitive advantages.



Value Creation

Value creation capabilities

Combining our expert personnel and technologies to create new value from the starting point of customer needs

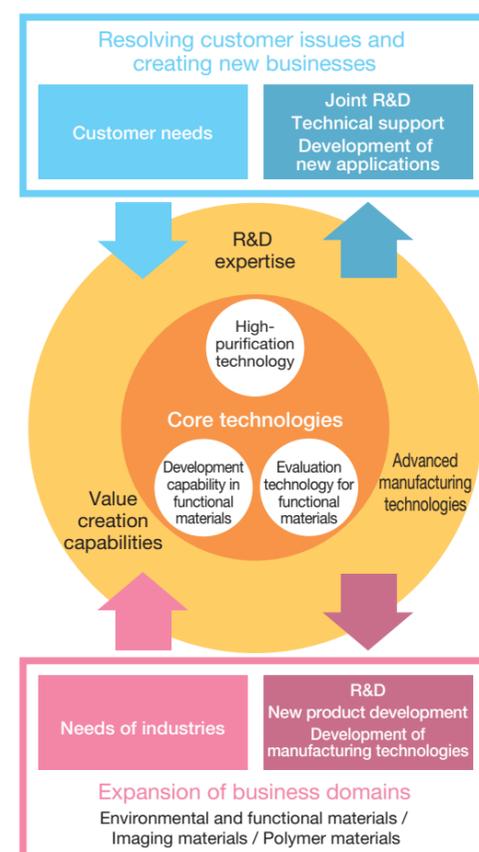
By leveraging the applied technologies developed from its core technologies, along with its extensive experience and expertise, the Hodogaya Chemical Group forges partnerships with its customers, identifies the issues they face, and proposes effective solutions. In this way, the Group creates new value by linking its technological capabilities to the needs of its customers' businesses.

Applying original technologies to create the new value needed by customers

The Hodogaya Chemical Group promotes the unique features of its products to help its customers solve problems. The Group forms development teams comprised of both sales and technical personnel to respond to all kinds of customer needs, including requests to make more user-friendly products, more durable automobile parts, and more efficient and longer-lasting electronic components. Joint development projects are also created with customers to develop materials with their required specifications, which are then used to develop new products or upgrade existing ones. In these ways, the Group offers new value to its customers no matter what they need.

Expert personnel and technology lead to the creation of new businesses.

The sources of the Hodogaya Chemical Group's problem-solving capabilities are its employees' expertise and core technologies, which have been accumulated over the Group's century-long history. Its sales personnel are well versed in technical matters, enabling sales departments to respond quickly to customers' requests. Furthermore, the Group's extensive expertise in its three core technologies, as well as the applied technologies it has developed from them, allow it to create and modify an array of chemical substances to develop all kinds of products. By combining this expert customer support and abundant technological resources, the Group can resolve the issues its customers face and create a business foundation for generating new products. In this way, the Group makes the most of both its employees and technologies to help its customers expand their business.





Research & Development

R&D expertise

Looking to the future with advanced research expertise and state-of-the-art facilities

Making the most of state-of-the-art research labs and advanced research expertise based on its accumulated chemical technologies, the Hodogaya Chemical Group carries out cutting-edge research projects and develops new products tailored to the diverse and emerging needs of the marketplace. By pursuing original R&D with a future outlook, the Group intends to expand its businesses while bringing benefits to people everywhere.

Employing comprehensive capabilities in R&D to respond to society's needs

Drawing on technologies developed over a history of 100 years, the Hodogaya Chemical Group is carrying out R&D across fields ranging from basic chemicals to the latest imaging materials. The Group's R&D projects are tailored to the specific requests of its customers and are designed to respond quickly to the increasingly diverse needs of society. By applying the skills and expertise it has refined over many years in research projects covering a wide spectrum of industries, the Group can develop industrial technologies and products with all-new functions.

A global R&D network capable of speedy turnarounds

The Hodogaya Chemical Group's R&D network is led by the Tsukuba Research Laboratory, as well as the development departments at each of its plants and the research facilities of South Korean subsidiaries SFC CO., LTD., and HODOGAYA CHEMICAL KOREA CO., LTD. Through their cooperation, the Group can take project requests and deliver results quickly. As the Group expands globally from Japan to other countries worldwide, it is pursuing cutting-edge R&D that the world will need in the future.

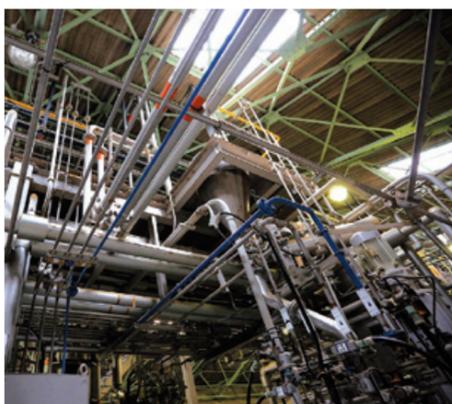


Production

Advanced manufacturing technologies

Ensuring product quality and reliability in accordance with international environmental and safety standards

The Hodogaya Chemical Group is committed to ensuring a stable supply of high-quality products tailored to the needs of its customers and the marketplace. At the same time, the entire group sets high standards for reducing environmental impact and improving safety in its manufacturing operations, placing the environment and safety as vital components of the value it creates.



Promoting environmental management and safety throughout the entire group

Responsible Care

Responsible care is a voluntary management initiative intended for companies involved in the production and handling of chemical substances to implement and improve their environmental, health and safety measures across the product lifecycle, from development to disposal. The Hodogaya Chemical Group has adopted a philosophy and basic policies related to responsible care, based on the principle that ensuring environmental protection, health and safety, and product quality are fundamental to its management and the basis for all business activities.

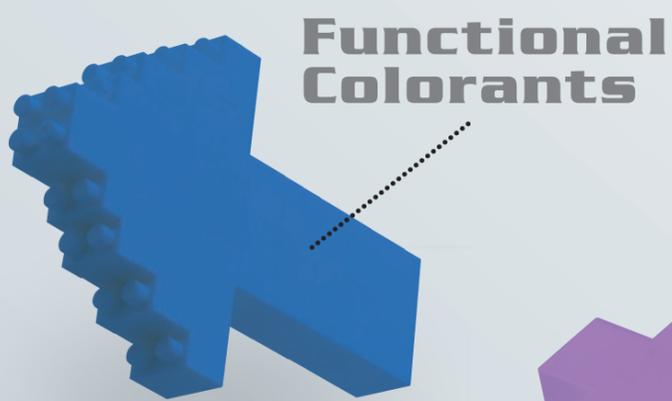


ISO 9001 and ISO 14001 Certification

Hodogaya Chemical Group companies have acquired ISO 9001 and ISO 14001 certification, the international standards for quality and environmental management systems, respectively. Accordingly, all companies in the Group are carrying out initiatives to manage the environment and boost quality.

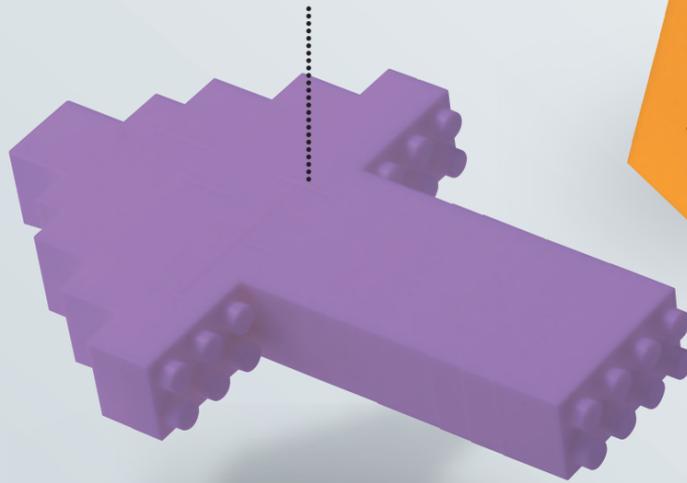


Continuing to create specialty products tailored to the needs of our changing society

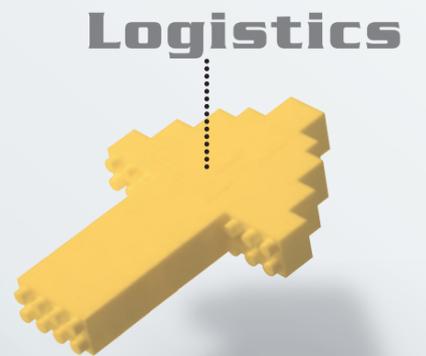


Functional Colorants

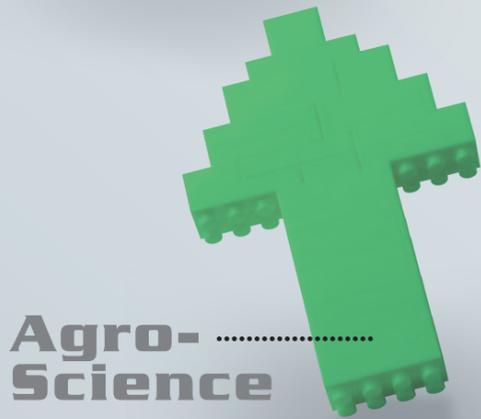
Specialty Polymers



Basic Chemicals



Logistics



Agro-Science

Applying technologies developed over a history of 100 years, the Hodogaya Chemical Group produces a diverse range of products ranging from dyes and agricultural chemicals to pharmaceutical intermediates, polyurethane materials and imaging materials. These products bring convenience and comfort to people's lifestyles and are used in a wide range of applications.

Functional Colorants

Applying the world's top-class technological standards, Hodogaya Chemical lays a path for the future with colorants for all kinds of industries, from food products to IT

The Hodogaya Chemical Group's products are added to many items used in everyday life, including food, stationery, and beauty care products. In the IT industry, the Group supplies imaging materials and OLED materials for use in photocopiers, printers, and displays. The Group has gained an excellent reputation in a broad range of industries for its wealth of technologies developed over a history of 100 years.



What does chemistry mean to you?

A necessity for realizing our capabilities

Imaging Materials

The Hodogaya Chemical Group supplies charge transport materials for organic photoconductors and charge control agents, which are a necessary component of toner, along with dyes for inkjet printers and materials for tickets and delivery slips. In the future, the Group intends to offer more environmentally friendly materials that can be used worry-free by customers.

Charge control agents

Leading global market share



OLED Materials

The Hodogaya Chemical Group manufactures three key materials in OLED materials, which have been raising expectations for next-generation lighting and displays. Through the OLED materials business, which it has positioned as a strategic business, the Group is working to add more value to these products and meet customers' requests for better energy savings, longer service life, and larger display panels.

Next-generation products



Dyes and Colors

Highly regarded in Japan and around the world, the Group's Spilon dye is used for ballpoint pen ink and for coloring the aluminum parts of digital cameras and other goods. The Group also supplies highly safe hair dyes.

Spilon dye

Leading market share in Japan

Hair dyes

Original product
Leading global market share



Food Additives

As a pioneer in the food additive market, the Hodogaya Chemical Group deals in a number of colorants tailored to its customers' specifications. These products are added to all kinds of food products, including seasonings, confections such as rice crackers, and pickled vegetables such as *kimchi* (Korean pickled vegetables). They are also widely recognized in industries besides food, including cosmetics.



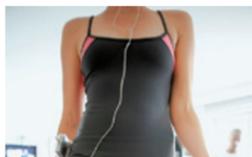
Specialty Polymers

Offering functional materials designed to bring more comfort and security to people's lives

The Hodogaya Chemical Group's specialty polymers business creates comfort in many aspects of people's lifestyles through products like warm and snug-fitting sportswear, and goods designed to make the home feel more secure. The Group's products offer satisfaction to customers for their excellent functionality and diverse benefits, including environmental friendliness, durability, and economical performance.

Functional Polymers

Backed by its extensive experience and expertise in the functional polymers business, the Hodogaya Chemical Group supplies products precisely tailored to customers' requests, including release agents and polyurethane materials. For polyurethane materials, in particular, the Group is a pioneer in the industry, supplying products with entirely unique characteristics to the global market.



Specialty polyol

Original product
Leading global market share

Construction Materials

Through its construction materials business, the Hodogaya Chemical Group supplies urethane waterproof materials for buildings, as well as silicic acid waterproofing materials and its Vandeflexin waterproofing agents, which are used to waterproof the underground concrete structure. These products can be used in numerous applications, and are highly regarded in the construction industry for their permanence and environmental adaptability.



Specialty Chemicals

The Hodogaya Chemical Group has expanded its specialty chemicals business worldwide in the pharmaceutical, agricultural chemical, polymer, and electronics industries by leveraging its highly advanced techniques for making phosgene derivatives, which are highly trusted by its customers. In addition to its mainstay phosgene derivatives—octadecyl isocyanate (ODI), pharmaceutical intermediates, and chloroformate—the Group supplies a range of chemical compounds tailored to its customers' specifications.



Polymer materials and pharmaceutical intermediates

Leading global market share



Bio-PTG

Drawing from the powerful possibilities of chemistry, the Hodogaya Chemical Group adds new value to its customers' products. A primary example of a high-performance, high-value-added product created by the Group is polytetramethylene-ether-glycol (PTG). As a polyol mainly used as a raw material for polyurethane, PTG is used to make fibers, resins, and coatings. By applying its extensive experience and advanced technological capabilities, the Group supplies PTG to the world as

an unrivaled high-performance, high-value-added product. In recent years, the Group began manufacturing bio-PTG by switching from the petroleum-derived raw materials it used in the past to plant-derived biomass raw materials, while maintaining the same level of performance as regular PTG. Consequently, it has reduced the consumption of fossil fuels and cut down on CO₂ emissions in the manufacturing process. The Group is now promoting bio-PTG as a means to help protect the global environment.

Basic Chemicals

Agro-Science

Basic chemicals help to make society's paper usage more environmentally friendly

The Hodogaya Chemical Group's hydrogen peroxide plays an important role in removing ink from used paper, so that it can be recycled as new paper for newsprint.

Through its basic chemicals business, the Group supplies a variety of highly safe and environmentally friendly chemical products. These include hydrogen peroxide, which is used for bleaching paper and fiber, oxidizing various industrial chemicals, and disinfecting environments. They also include sodium percarbonate, a chemical used as a fabric bleach and household cleaning agent, and oxypale, a substance used to disinfect plastic bottles and sterilizing medical instruments. The Group also makes multipurpose etching agents for printed circuit boards.



Using a range of herbicides and formulation techniques to protect agricultural land and nature

With its long history in the field of agricultural science, the Hodogaya Chemical Group's agro-science business helps to protect agricultural land and nature, ridding harmful insects and weeds from crops while boosting productivity.

Through its agro-science business, the Group provides agricultural chemicals and materials for a wide range of applications, from supporting agriculture and home gardening to maintaining green spaces. While the Group works to develop products specially designed for every category of agriculture and to promote their usage, its ability to develop home gardening herbicides, in particular, has won it a strong reputation in the marketplace.

Home gardening herbicides

Leading market share in Japan



Logistics Others

Applying accumulated expertise to expand into a number of services

The Hodogaya Chemical Group includes companies that specialize in services such as logistics and contract research. By leveraging their specialized capabilities and the synergies between member companies, the Group strives to effectively meet the diverse needs of its customers.



Logistics

The Hodogaya Chemical Group has been handling hazardous substances and chemicals for a century. Drawing on this extensive expertise, group company Hodogaya Logistics Co., Ltd., offers superior services and total logistics solutions through operations that draw on its locational advantages and highly integrated facilities. Making full use of the Group's main plants and network, Hodogaya Logistics has set up a comprehensive transport system covering land, sea, and air shipments, allowing it to provide extensive support to the import and export operations of its customers. In its international logistics service, in particular, the company has taken steps to raise the level of service quality, and offers highly convenient logistics support covering all operations, including transport and delivery of goods from any area of Japan, their loading into warehouse facilities, storage, packing, customs clearance, and shipping.

Contract Research

The Hodogaya Chemical Group and the India-based Jai Research Foundation (JRF) Group established Hodogaya JRF Contract Laboratory Co., Ltd., as a joint venture in 2014. The purpose of this move was to expand the chemical testing service previously provided by the former company Hodogaya Contract Laboratory Co., Ltd., and to better respond to the need for safe chemical testing in Japan. Through the new company, the Hodogaya Chemical Group and the JRF Group will strive to capitalize on synergy effects while targeting the agrochemical, pharmaceutical, and chemical industries in particular. The new company will also combine both groups' expertise in the field of organic composites to provide a comprehensive one-stop service ranging from sample provision to testing.



Network

With a forward-looking stance, the Hodogaya Chemical Group is strengthening its network of companies in Japan and around the world



Group

Leveraging the unique characteristics of each company to increase the overall corporate value of the Group

The Hodogaya Chemical Group provides dependably high-quality products and services while taking advantage of the unique technological capabilities, expertise, and networks of each of its member companies. This boosts the corporate value of the Group as a whole and helps to strengthen the relations of trust with customers.

Hodogaya Chemical Group

| | | |
|---|---|--|
| Functional Colorants | SFC CO., LTD. (South Korea) | R&D, manufacturing and sales of OLED materials |
| | HODOGAYA CHEMICAL KOREA CO., LTD. | Sales, marketing and R&D of chemical products |
| Specialty Polymers | Hodogaya Vandex Construction Products Co., Ltd. | Manufacturing and sales of construction products |
| Basic Chemicals | KYODOU KASANKASUISO CORPORATION | Manufacturing of hydrogen peroxide |
| | Agro-Science (Includes one other affiliate) | Hodogaya UPL Co., Ltd. |
| Logistics | HODOGAYA AGROTECH Co., Ltd. | Manufacturing and sales of agricultural chemicals |
| | Hodogaya Logistics Co., Ltd. | Warehousing and logistics |
| Others (Includes two other affiliates) | KATSURA SANGYO CO., LTD. | Sales and marketing of chemical products |
| | HODOGAYA CHEMICAL (U.S.A.), INC. | Sales and marketing of chemical products |
| | HODOGAYA (SHANGHAI) TRADING CO., LTD. | Sales and marketing of chemical products and their raw materials |
| | Hodogaya JRF Contract Laboratory Co., Ltd. | Contract-based custom synthesis, analysis and development |



Hodogaya Chemical Co., Ltd.

HODOGAYA

www.hodogaya.co.jp/english/

