



HOKKO REPORT 2021



The History of Value Creation and Future Challenges

Hokko Chemical Industry was founded in 1950 as an independent spin-off agricultural chemical company from the chemical division of Nomura Mining Co., Ltd., which was involved in the production of pesticides. We have developed the pesticide and fine chemical businesses with the Grignard reaction, which was extremely difficult to scale up commercially, as our core technology. Although we launched a new business in 2019, the company has entered the textile materials business related to the fine chemical business and continues to evolve.

Crop Protection Products Business

The business started with Bordeaux (a copper fungicide product) business, which was synthesized and formulated based on the technology inherited by Nomura Mining. We also developed a highly effective ingredient against blast in rice using the Grignard reaction, which is an organic synthetic reaction technology.

Advanced technology and development capabilities

In 1965, we developed Kasugamycin, an aminoglycoside antibiotic isolated from Streptomyces kasugaensis, which is produced by microorganisms discovered in the soil of Kasuga Grand Shrine in Nara Prefecture. Today, Kasugamycin has obtained pesticide registration in over 40 countries.

We developed Ipfencarbazone in 2014. It demonstrates a high level of safety in paddy rice and residual efficacy against Echinochloa sp., which is one of the most noxious weeds in rice paddy fields. It has been well received in Japan and was registered in South Korea in 2014. Since then, we have been conducting tests for registration in various other Asian countries.

In addition, we established a reputation for outstanding formulation technology, and in the 1990s we developed the Dr. Oryze series jointly with Meiji Seika Pharma Co., Ltd. This product series, uses elution control technology, to control pests during the growing season after the rice is transplanted by simply spraying the chemicals on nursery boxes before rice planting.



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Fine Chemicals Business

We were the first company in Japan to succeed at industrial production of organometallic compounds using the Grignard reaction. In addition to producing crop protection products using our expertise in reaction technology, we also explored other ways we could contribute to society and industry through chemical products. Our Fine Chemicals Business was born from this and is now one of our leading businesses.

Products for wide-ranging fields

It was in 1969, when we began manufacturing raw materials for vinyl chloride stabilizers, that the fine chemicals business began to take off as an independent division, utilizing the Grignard reaction technology and developing into the second major business.

We began manufacturing raw materials for synthetic fragrances and pharmaceutical raw materials and intermediates in the late 1970s and Triphenylphosphine (TPP), an organophosphorous ligand for catalysts that has become a leading product, in the 1980s. Later, we began working with raw materials for functional polymers, and in the 2000s, we launched sales of raw materials for automotive exhaust gas purification catalysts. Today, we offer products for the resin, electronics materials, pharmaceutical, and agrochemical fields.

In 2002, we established Zhangjiagang HOKKO Chemical Industry Co., Ltd. in Jiangsu, China as a production base for fine chemicals products.



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C. Murata & Co., Ltd., which became a group company in 2019, is a long-standing company that was established in 1885. It was originally formed as a textile company that handled kimono and silk products, but in more recent years, it has transitioned its business model to that of a specialized textile materials trading company. Although it is a trading company, one of the key features of C. Murata is its ability to conduct product planning according to customer needs, develop textile materials from raw materials, perform original additional processing, and develop and provide multi-function, high-performance products. Its products are used in a wide range of fields including industrial textile materials for automobiles and furniture as well as consumer textile materials for bags, shoes, apparel, nursing care, disaster prevention, and other products. Going forward, C. Murata will strengthen development of recycled products that make use of recycled fiber. protect the global environment and natural resources, and contribute to the development of a sustainable and enriching society.

Generating group synergy effects

C. Murata and Hokko Chemical will integrate their respective skills, know-how, and networks to generate synergy effects, thereby expanding the Group's business fields and areas and creating added value.

In addition, C. Murata's Shanghai Office plays an important role in developing manufacturing bases in China and in quality control, and we will reinforce collaboration

with the office as an overseas business site of the Hokko Chemical Industry Group.



Editorial Policy

Hokko Group issued Responsible Care reports in the past, and since FY 2018, we have issued the Hokko Report to also function as a company profile and integrated report with the aim of achieving a more comprehensive understanding of our group.

This Hokko Report describes our management policies, business activities, management plans, Environmental, Social, and Governance (ESG) activities, financial data, and other information.

FY 2030

We Can Create the Future

Hokko, Becoming Strong and Prosperous

Business Year Ending Nov. 30, 2030

Targets:

Consolidated Sales

More than ¥50 Billion

Consolidated Ordinary Income
More than ¥5 Billion

Vision for Growth

Contributing to the Development of a Sustainable Society

We will continuously provide high-quality, high value-added products to market and contribute to the development of a sustainable society. In addition, as we create a sustainable society, we will undertake measures with an awareness of the SDGs.

Employees Demonstrate Their Individuality and Skills

We will create work environments where all employees can fully demonstrate their unique individuality and skills and continuously increase per capita productivity.

Structures Resilient against Risk

We will have structures that can respond systematically and flexibly to anticipated risks including natural disasters, epidemics, and economic crises.

Reporting Scope

Reporting period:

FY 2020 (Dec. 1, 2019–Nov. 30, 2020) Some of the reported information includes activities conducted after December 2020.

Reporting scope:

Hokko Chemical Industry Group. However, quantitative data on health and safety and the environment cover only the main production and research facilities of Hokko Chemical Industry Co., Ltd., namely the Hokkaido Factory, Niigata Factory, Okayama Factory, and the Central Research Laboratories and Fine Chemicals Research Laboratories.

Referenced guidelines:

Environmental Reporting Guidelines 2018, Japanese Ministry of the Environment

Published:

August 2021 (next release scheduled in August 2022)

Message from the President



Ken-ichi Sano President

New Management Plan Launched

We would like to begin by expressing our deepest condolences to all those who have lost family members to COVID-19 and our heartfelt sympathy to everyone who has been affected by this pandemic. We would also like to convey our sincere gratitude to healthcare workers and the many others who have worked tirelessly to prevent the spread of infections. The Hokko Chemical Industry Group will continue to make every effort to stably supply products while taking adequate measures to ensure the safety of its officers and employees.

During the spread of the COVID-19 pandemic, there have been concerns within the Group regarding the impact on business performance, but fortunately, the impact during the previous fiscal year (FY 2020) was minimal. Although there are still some remaining issues from the previous three-year management plan, of which FY 2020 was the final year, we were able to make strong progress toward the future, and last vear we were able to celebrate the 70th anniversary of Hokko Chemical's founding.

In FY 2021, we launched a new management plan, the HOKKO Value Up Plan 2030. In this plan, we define a vision for the Group's future and will make the capital investments necessary to achieve continuous growth and work toward attaining that vision, but it will take approximately 10 years for the effects of that investment to be realized, and for this reason, the plan targets are for FY 2030. During the first five years of the plan, set as the 1st Stage for Creation, we will reinforce foundations by implementing business reforms, and in the next five years, set as the 2nd Stage for Advance we will seek to achieve our vision and our targets of 50 billion yen in sales and 5 billion yen in ordinary income, which were the targets for the near future under the previous plan. In addition, we formulated a policy on measures for achieving the SDGs in accordance with our corporate philosophy and will take action to achieve those targets.

Improving our corporate governance and Responsible Care activities* are major premises for achieving this plan and maintaining continuous growth by the Group over the long term. We are working together with stakeholders and maintaining a strong awareness of compliance so that it can achieve sustained growth and improving our corporate value in the mid- to long term. As a chemical company, we must ensure safety and environmental considerations in all processes from development to manufacturing, distribution, product use, and disposal. We are therefore conducting Responsible Care activities. Through these activities, we are making ongoing improvements to the environment, safety, and health.

Hokko Chemical Industry was established when the chemical division of Nomura Mining Co., Ltd. became an independent company on February 27, 1950. Since then, we have steadily developed with the manufacture and sale of Crop Protection Products and Fine Chemicals as its main businesses. In 2019, we acquired C. Murata & Co., Ltd., making a new entry into the Textile Materials Business. The Group will continue to make steady progress while solidly maintaining the aspirations expressed in our corporate philosophy of benefiting humankind through the provision of products.

We hope that through this report, our stakeholders are able to deepen their understanding of Hokko Group. We welcome your candid feedback as we pursue our future activities.

May 2021

* Responsible Care activities: In the chemical industry, companies that handle chemical substances voluntarily secure "environment, safety and health" in all processes from chemical substance development, manufacturing, distribution, use, final consumption, and recycling through to disposal, publicly release the results of those activities, develop the activities and communicate with society. These initiatives are called Responsible Care activities, and Responsible Care is sometimes abbreviated as RC in this report.

Corporate Philosophy

With the goal of benefitting humankind and the management keywords of "social contributions," "the environment" and "technology," we offer safe and reliable crop protection products that contribute to food security, and fine chemical products that broadly support industrial activities.

Basic Management Policy

Steadily implement our business plan to realize our Corporate Philosophy so as to achieve sustainable and stable growth, contribute to the development of domestic and overseas industries, and create a more affluent society. Under self-regulation from management led by our Board of Directors, we aim to improve our mid- to long-term corporate value and continue to be a company trusted by society.

Review of the Previous Three-Year Management Plan

The basic policies of the previous three-year management plan were to "improve the revenue base of existing businesses," "expand business fields and domains," and "maintain a sound financial constitution," and measures were taken to achieve these targets.

Summary of the Previous Three-Year Management Plan (FY Ending November 30, 2018 to FY Ending November 30, 2020)

		OKKO Growir ange—Embrace al
Main Points of the HOK	KO Growing Plan 2020	Main Achievements fro
Improve the revenue base of existing businesses Strong core businesses driving profit higher	We will strengthen earnings in our existing businesses by shifting our business structure and improving and reforming work processes.	 Constructed productio Factory and began st Established more spe product manufacturir cut fixed manufacturi Expanded candidate and took action for th leading chemical con Established the Vietn All crop protection pr Japan have obtained qualifications
Expand business fields and domains New fields creating sales	To ensure that we enter a growth track, we aim to use alliances and M&A to build new businesses and enter new fields and domains.	 Acquired C. Murata & whollyowned subsidi entered the textile ma Acquisition of basic k management system
Maintain a sound financial constitution Stable frame supporting growth	We will maintain sound financial standing that offers a balance of shareholder returns and investment in growth to support our sustained growth into the future.	 Increased internal eq interest-bearing debt occurrence of risks Sold or put into use id Improved management companies

Targets and Results (Consolidated)

						(11111011 +)
	FY 2020 target		FY 2018 results	FY 2019 results	FY 2020 results	Assessment
Sales	45,000		41,015	41,986	39,641	×
Ordinary income	3,500		4,081	3,751	3,258	×
Ordinary income margin	At least 7.8%		10.0%	8.9%	8.2%	0
D/E ratio	Within 0.4		0.09	0.05	0.07	0
ROE	At least 8%		12.8%	11.2%	8.5%	0
[Reference]						
Capital adequacy ratio	At least 50%	'	59.8%	60.7%	63.0%	0

Overall Assessment

- Improve the revenue base of existing businesses: Overall assessment-Partially achieved The target for ordinary income was not achieved, but the targets for ordinary income margin and ROE were achieved.
- Expand business fields and domains: Overall assessment-Partially achieved The target for sales was not achieved, but the Group entered a new business field (Textile Materials Business) through the acquisition of C. Murata & Co., Ltd.
- Maintain a sound financial constitution: Overall assessment—Achieved The targets for the D/E ratio and capital adequacy ratio were achieved. Internal equity was increased in preparation for the occurrence of risks in the future and a sound financial constitution was maintained.





(million ¥)

New Management Plan

We launched a new management plan with FY 2021 as its first year. The plan set forth a future vision for the Group and measures for sustainable growth to achieve that vision and actively contribute to society.

Long-Term Management Plan

We will make the investments necessary for achieving sustainable growth. It will take approximately 10 years for the effects of that investment to be realized, and for this reason, the plan targets are for FY 2030. During the first five years of the plan, set as the 1st Stage, we will reinforce foundations by implementing business reforms, and in the next five years, set as the 2nd Stage, we will seek to achieve our vision. In addition, we will take action to attain the SDGs so that we can achieve sustainable growth and contribute to the development of a sustainable society.

Long-Term Performance Targets and Slogan



* Business results in the immediate future are unpredictable because of the COVID-19 pandemic, and therefore, guantitative targets have not been set for each fiscal year

Long-Term Management Strategies for Achieving Long-Term Growth

With "reinforce initiatives in overseas markets," "develop human resources who can adapt to environmental change," "reduce costs through expanded and improved facilities," and "expand high added-value products" as strategies common to all businesses, individual businesses will carry out the following strategies.

Business	Long-Term Management Strategies
Crop Protection Products	 Develop products and reinforce the product lineup with an eye toward the agriculture of the future Develop and manufacture new active ingredients adapted to globalization
Fine Chemicals	 Advance core technologies and develop original products Create new business through alliances and other means
Textile Materials	 Rebuild procurement and supply structures Reinforce product development capabilities and earnings capacity Expand synergy effects among businesses

Medium-Term Management Plan: 1st Stage for Creation

1. Basic Policy

We will carry out three reforms: Reform of profit structures, manufacturing innovation, and reform of work styles. We will eliminate unreasonableness, waste, and inconsistency to enhance corporate value and resolve social problems and build robust and solid corporate structure to create a strong and prosperous Hokko.



2. Business Targets

We set the following performance target and KPI and will take action to achieve them with an eye toward attaining 50 billion ven in sales and 5 billion ven in ordinary income during the 2nd stage.

				(million ¥)
Performance Targets			FY 2020 Results	FY 2025 Plan
Sales		39,641	46,500	
	Ordinary inc	ome	3,258	4,400
Financial KPI		KPI	FY 2020 Results	FY 2025 Plan
Reform profit	Profitability	Ordinary income margin	8.2%	At least 9%
		ROE	8.5%	At least 8%
	Financial soundness	Capital adequacy ratio	63.0%	Maintain at least 60%
Manufacturing	Crop Protection Products Business	Manufacturing cost (based on FY 2020 actual production volume)	_	Total reduction from FY 2021 to FY 2025 of 800 million yen*
innovation	Fine Chemicals Business (based on FY 2020 actual output)		-	Improve by 20% in FY 2025
Reform work styles		pense sales ratio tsourced research cost)	Annual average from FY 2018 to FY 2020: 18.4%	Below 17%

* Total difference between the manufacturing cost calculated by multiplying the cost per unit in each fiscal year by the quantity in FY 2020 and the actual manufacturing cost in FY 2020.

P Reform Profit Structures

Growth and reinforcement of financial foundations

Strong Hokko Prosperous Hokko Contribution to Society

W Reform Work Styles

Raising operational efficiency and developing human resources

We will take measures with an emphasis on raising operational efficiency and developing human resources so that all employees can fully demonstrate their individuality and abilities.

Initiatives Addressing the SDGs

About the SDGs

The Sustainable Development Goals (SDGs) are international goals to undertake from 2016 to 2030 which was adopted at the United Nations Sustainable Development Summit of September 2015. The SDGs consist of 17 goals and 169 targets to achieve a sustainable world and represent a call to action for governments and companies.

When addressing the SDGs, the Hokko Group thoroughly examined which of the SDG goals and targets the Group's business are contributing to (see page 8).

Coordination with New Management Plan

When formulating the new management plan, of which FY 2021 is the first year, we established the SDGs Action Policy based on our corporate philosophy and taking into consideration our vision for 2030.

In accordance with this policy, we conducted examinations from the perspectives of business activities and solving social problems and set KPI relating to social aspects (social KPI).

The Hokko Group will steadily carry out the new management plan and contribute to achieving the SDGs.

Corporate Philosophy

SDGs Action Policy

Concrete Measures Undertaken through Business Activities SUSTAINABLE GOALS

SDGs Committee

We established the SDGs Committee in December 2020 to comprehensively and effectively promote the Hokko Group initiatives for achieving the SDGs.

Each business group promotes initiatives for achieving the SDGs in the business activities of each business group, manages progress, shares information on results within the committee, and discusses improvements and new measures.

SDGs Action Policy, KPI, and Targets

SDGs Action Policy	Social KPI	FY 2025	FY 2030	SDGs goals and targets		
A. Contribute to the development of a society where all people are happy.	Acquisition of certification as an outstanding health and productivity management organization	Acquisition by FY 2025	Maintain	8 всемя нов но сомана самян сомана самян	8.8 Promote safe and secure working environments	
B. Minimize the environmental impact of products throughout the product lifecycle from development to disposal.	Unit energy consumption (compared to FY 2020)	Reduce by at least 5%	Reduce by at least 10%	7 example of	7.3 Double the global rate of improvement in energy efficiency	
C. Support sustainable agriculture through the provision of crop protection products.	Ratio of rice paddy area treated with high-diffusion granules	At least 5%	At least 10%	2 International and a second work was and a second work and a seco	2.4 Ensure sustainable food production systems8.2 Achieve higher levels of productivity of economies	
D. Contribute to technological innovation in industry through the provision of fine chemicals products.	Number of new products launched	Total of at least 60 products by FY 2025	Total of at least 130 products by FY 2030	8 ISON KAN AD ISONAC CARRY ISONAC CARRY	8.2 Achieve higher levels of productivity of economies9.5 Encourage innovation	
E. Contribute to the development of industry and the creation of a prosperous society through the provision of textile materials.	Use rate of recycled fiber	At least 10%	At least 30%	12 BURGEL AN PRECESS	12.5 Reduce waste generation	

Relationships with SDGs

Contributing to the SDGs through the Provision of Products and Goods

Crop Protection Products	Fine Chemicals Products		Textile Materials Pro	ducts
Crop protection products contribute to securing stable and efficient food supplies as well as reducing labor and manpower in agriculture by promoting increased food production to support the growing global population, decreasing fungal toxins that occur in agricultural products, and reducing the burdens of agricultural labor.			Multi-function, high-performance textile material products are used in a wide range of industrial and consumer fields including automobiles, furniture, bags, shoes, apparel, pet supplies, disaster prevention, and nursing care, contributing to the development of industry and the creation of a prosperous society.	
SDG relevant to our business Main related activities Listed				
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	SDG relevant to our business	Main related activities	Listed page
2 TERO HOMGER	Goal 2: ZERO HUNGER End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Provide society with safe and reliable crop protection products contributing to a stable food supply.	pp.9-10
3 GOOD HEALTH AND WELL-BEING	Goal 3: GOOD HEALTH AND WELL-BEING Ensure healthy lives and promote well-being for all at all ages	Crop protection products curtail the occurrence of highly toxic fungal toxins, protecting us from harm to our health. The Fine Chemicals Business supplies products in the pharmaceuticals field as well.	pp.9-12
5 GENDER EQUALITY	Goal 5: GENDER EQUALITY	Declare our respect for diversity in our Basic Compliance Policy and the Hokko Chemical Industry Group Code of Conduct.	pp.25-26
₽ [°]	Achieve gender equality and empower all women and girls	Take steps to increase the number of women job applicants and percentage of women managers.	_
6 CLEAN WATER AND SANFEATON	Goal 6: CLEAN WATER AND SANITATION Ensure availability and sustainable management of water and sanitation for all	Work to prevent water pollution.	p.20
7 AFFORMATE AND	Goal 7: AFFORDABLE AND CLEAN ENERGY Ensure access to affordable, reliable, sustainable and modern energy for all	Promote energy conservation activities.	p.19
8 ECENT WORK AND ECONOMIC GROWTH	Goal 8: DECENT WORK AND ECONOMIC GROWTH Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Obtain ISO 45001 certification and promote occupational health and safety.	p.21
9 INVESTIC INFORMATION AND INFRASTRUCTURE	Goal 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Through research and development of crop protection products and fine chemical products and the development and provision of textile materials, we are promoting innovation.	pp.9-14
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Goal 12: RESPONSIBLE CONSUMPTION AND PRODUCTION	Take steps to appropriately manage chemical substances and waste and reduce their discharge.	p.20,22
00	Ensure sustainable consumption and production patterns	Issue the Hokko Report and publish information related to sustainability.	_
13 CLIMATE ACTION	Goal 13: CLIMATE ACTION	Establish a business continuity plan (BCP).	p.26
	Take urgent action to combat climate change and its impacts	Take steps to conserve energy and reduce CO ₂ emissions.	p.19
14 below water	Goal 14: LIFE BELOW WATER Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Appropriately treat wastewater and reduce wastewater impacts.	p.20
15 UR MILKO	Goal 15: LIFE ON LAND Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Conduct greening activities at our factories.	_
17 PARTNERSSAPS FOR THE COLLS	Goal 17: PARTNERSHIPS FOR THE GOALS Strengthen the means of implementation and revitalize the global partnership for sustainable development	When developing new products and technologies, we conduct joint development among industry, government, and academia (partnerships).	p.14



Business Description

Crop Protection Products Business

Hokko's products ensure crop protection from seed treatment to harvesting

In our Crop Protection Products Business, we have manufactured and sold safe and effective agricultural chemicals since our founding with the motto "Hokko's products ensure crop protecti from seed treatment to harvesting."

Agricultural Chemicals R&D

Crop protection products protect crops from diseases, pests, and weeds to support the safety and affluence of our food supply with the stable supply of agricultural crops. They also offer other benefits such as reducing agricultural labor and are indispensable to agriculture.

Developing crop protection products involves not only tests of agricultural chemicals' efficacy and non-target phytotoxicity, but also many tests related to safety. For this reason, it can take more than 10 years and tens of billions of yen to develop a new agricultural chemical. Of all the new chemical compounds, it is said that 1 in 160,000 gets registered as an agricultural chemical.

Starting with Kasugamycin (antibiotic fungicide for paddy rice and horticulture), which is highly effective at controlling the fungus that causes rice blast, a destructive disease found in cultivated rice, our development team has successfully developed many new active

components. Another is lpfencarbazone (a paddy rice herbicide), which demonstrates a high level of safety in paddy rice and is effective against the lowland weed barnyard grass. We have earned a reputation for our expertise in chemical formulations that greatly contribute to improving pest and disease control technology and labor savings.





Manufacturing and Sales Process Flow from R&D



Production Structure

We operate three factories in Japan that are equipped with the latest facilities and technologies to produce highquality products. We give due consideration to both the surrounding environment and working conditions in our production operations and take all possible measures to prevent water, air, and other forms of pollution.

We also contract the manufacture of formulated products including some insecticides, fungicides, and herbicides as well as repacking.



Niigata Factory Liquid Plant No.1



Business in Japan Diverse product lineup and support structure

We offer detailed information to distribution







in crop protection products

* All graphs on p.10 are based on non-consolidated data from FY 2020 actual results.

the USA

Fine Chemicals Business

Contributions to the development of industry and society by building upon original techno

Our Fine Chemicals Business supplies a wide range of business fields with products made using its core technology represented by Grignard reaction.

Hokko Fine Chemicals Products

We use the generic name of "fine chemicals" for highvalue added chemicals produced in small quantities versus mass-produced chemical products. To meet the needs of society and markets, our Fine Chemicals Business Unit supplies high purity, high performance, and high value-added products made using our original manufacturing technology based on the Grignard reaction. These products are used in resins, electronics components, pharmaceuticals & agrochemicals, and other fields to support the development of industry and affluent living.

Business Description



Hokko Technology Grignard Reaction

The Grignard reaction was developed in 1900 by the French chemist Victor Grignard. It is the generic name for reactions involving an organomagnesium halide compound (Grignard reagent). Grignard reagents are widely used in industry, but reaction temperature control during reagent synthesis is challenging, and few companies conduct large-scale synthesis of Grignard reagents. We meet a wide range of customer needs using our world-leading technologies and production scale.

Fine Chemicals R&D, Manufacturing, and Sales System

We conduct integrated research and development through the coordinated efforts of our Fine Chemicals Marketing Department and Fine Chemicals Business Planning Department at the Head Office and the Fine Chemicals Research Laboratories.

Our Okayama Factory engages in efficient production with a total of nine workshops, including clean rooms able to produce pharmaceutical intermediates and raw materials for electronic materials. We are also developing our international operations, with our subsidiary Zhangjiagang Hokko Chemical Industry Co., Ltd. in China the second fine chemicals production site after the Okayama Factory.





Manufacture and Sale of Hokko Products and Contracted Manufacturing

Hokko Products

Based on our synthesis technologies and experience in organometallic compounds built up over 70 years since our founding, we have developed numerous products using the Grignard reaction as the key technology. Those fine chemical products include electronic materials such as a curing accelerator for epoxy molding compounds, organic catalysts, pharmaceutical raw materials and intermediates, and monomers for functional polymers.

Leading Products

Organophosphine compounds	Grignard rea
TPP····(⊘)₃P	Grignard
TTBuP…(tert-C₄H ₉)₃P	Alashala dar
TPPO…()3P=O	Alcohols, der
TPP-PB…(() ₄ P+Br ⁻	4P10L…
$DPPE\cdots(\bigcirc)_2PCH_2CH_2P(\bigcirc)_2$	3B10L…
$Crophos \cdots (tert - C_4H_9)_2 PCH_2 CH = CHCH_3$	DMDO
m-Crophos…(tert-C4H9)2PCH2CH=C(CH	H ₃) ₂ DMBC····
Xantphos, DPEphos, Amphos, DPPF	
Functional styrene monomers	
PCST ···CI - CH=CH₂	TPBX ····
ÇH₃	Hokator
PTBST····CH₃-Ċ-O -ᠿ-CH=CH₂ CH₃	Hokstar,
0110	
PVBA…HOOC -	

Contracted Manufacturing

In addition to our own products, we also contract manufacturing based on proposals using Hokko technologies and Hokko raw materials. Leveraging our advanced technologies and know-how built up over many years, we meet customers' detailed needs and requirements using our production system consisting of multipurpose manufacturing units of various sizes equipped with the latest facilities.

Global Marketing

We opened Munich Representative Office to serve as a marketing base in Europe. Through this office, we are able to more quickly respond to our customers in Europe and aim to capture new demand.



Munich Representative Office (building housing the office)



 * All graphs on pp.11-12 are based on non-consolidated data from FY 2020 actual results.

Textile Materials Business

Creation of new value for provision to society

In the Textile Materials Business, C. Murata & Co., Ltd. provides optimal textile materials to a wide range of fields in society.

Manufacturing That Starts with Planning

By developing textile materials from raw materials and performing original additional processing, we are able to develop and supply multi-function, high-performance products. These products are used in diverse areas including automobiles, furniture, bags, shoes, apparel,

pet supplies, disaster prevention, and nursing care. We respond accurately to customer needs and contribute to the development of a prosperous society through the provision of products.

Features

Provision of functionality that pursues comfort	Breathability and waterproofness, high water pressure resistance, stretchability, drapability, water absorption and quick drying, moisture absorption, UV protection, heat retention, cooling sensation, light weight, etc.	
Providing functions for clean and healthy lives	Bacterial control/odor control, antibacterial/deodorant, antistatic, ultra-water repellent, oil and dirt repellent, etc.	
Overseas operations	A lineup of differentiated and low-cost products created through overseas procurement and processing	

Main product groups

Base fabrics for synthetic leather and PVC leather

Applications are highly varied and include car seats, sofas, bags, and shoes. By using a wide variety of natural and synthetic fibers as materials, our affiliated weaving mills weave raw yarns and carry out integrated production from weaving to additional processing. We are also the sole Japanese distributor for a European manufacturer of release paper for synthetic leather patterns.

Various materials used as surface materials for bags, shoes, and miscellaneous goods

These materials are used in various brand products. We procure a variety of materials from Japan and overseas, perform functional processing according to needs, and supply products to the nursing care and healthcare fields.

Textiles for apparel companies

Our original multi-use materials are available in a variety of colors under our private brand MU-TECH. MU-TECH pursues high functionality and fashionability and response to customer needs through lot-less support. We also engage in OEM production with a focus on sports and casual apparel.

Main value creation process



Research & Development

At our Central Research Laboratories and Fine Chemicals Research Laboratories, we are improving our R&D capabilities and promoting R&D under the slogan of "Continuous Development for New Technology: Challenge to Innovation."

Central Research Laboratories (Crop Protection Products Business)

The Central Research Laboratories opened in 1966 after relocating laboratories from Ofuna, Kamakura City, Kanagawa Prefecture. It is involved in creation of new technical products for crop protection products, developing new crop protection products, and providing technical support for sales. In 2016, it obtained certification of compliance with standards for proper testing of toxicity and residues of agricultural chemicals (Good Laboratory Practice [GLP] for Agricultural Chemicals).



Experimental Farms

Conducts experiments to develop crop protection products meeting local needs, mainly using cultivated land designated for experiments. The Atsugi Experimental Farm is attached to the Central Research Laboratories.

Hokkaido Experimental Farm

- Location: Yubari-gun, Hokkaido Site area: 19,700 m² Established: 1985
- Shizuoka Experimental Farm Location: Makinohara City, Shizuoka
- Site area: 23.800 m² Established: 1982





Fine Chemicals Research Laboratories (Fine Chemicals Business)

The Fine Chemicals Research Laboratories was established in 1989 on the grounds of the Central Research Laboratories to augment the R&D team at our Atsugi research facilities in conjunction with expansion of our Fine Chemicals Business. It conducts research and development on fine chemicals, raw materials for fine ceramics, and antifungal agents.



- Location: Atsugi City, Kanagawa Site area: 22,000 m^{2*} • No. of employees: 128* (as of Nov. 30, 2020)
- * Includes the Fine Chemicals Research Laboratories



Central Research Laboratories and Fine Chemicals Research Laboratories

Vietnam Experimental Farm

Location: Long An Province, Vietnam Site area: 10.000 m² Established: 2019





Manufacturing

We are adding to our production facilities and increasing efficiency at our factories, building a robust production structure.

Hokkaido Factory (Crop Protection Products Business)

- Location: Takikawa City, Hokkaido
- Site area: 53,000 m²
- No. of employees: 42 (as of Nov. 30, 2020)

Our Rubeshibe Factory, located in Rubeshibe, Hokkaido, where we first got our start, was not located near the main rice-producing region of Hokkaido. We relocated the Hokkaido Factory to the major rice-producing region of Takikawa and completed the factory in 1970. The Hokkaido Factory is our leading crop protection product manufacturing facility in Hokkaido.



Niigata Factory (Crop Protection Products Business)

- Location: Shibata City, Niigata
- Site area: 128,000 m²
- No. of employees: 88 (as of Nov. 30, 2020)

We established the Niigata Factory in 1961 in one of the leading grain-growing regions in Japan as the first crop protection product factory located along the Japan Sea. We built the Niigata Factory Branch Plant in 2016 for the purpose of creating a stable supply structure to expand exports of Kasugamycin, our original technical product.



Okayama Factory

(Crop Protection Products Business/Fine Chemicals Business)

Location: Tamano City, Okayama

- Site area: 184,000 m²
- No. of employees: 250 (as of Nov. 30, 2020)

As the first factory attracted by Okayama Prefecture, the Okayama Factory was constructed in 1953 for the purpose of integrated production of crop protection products starting from synthesis of agricultural chemical technical products. In addition to crop protection products, the factory currently produces raw materials for electronics components and fine chemical products including pharmaceutical intermediates.

Zhangjiagang HOKKO Chemical Industry Co., Ltd. (Fine Chemicals Business)

Location: Zhangjiagang City, Jiangsu Province, China Site area: 165,000 m²

No. of employees: 92 (as of Nov. 30, 2020)

We established the wholly owned subsidiary Zhangjiagang HOKKO Chemical Industry in 2002 as a manufacturing facility exclusively for fine chemical products. A new plant was added in 2009. In cooperation with the Okayama Factory, Zhangjiagang HOKKO Chemical Industry is part of our global production structure.





Group Companies

Overviews of the business of each Group company and descriptions of their roles within the Group.





 Head Office: 1-5-4 Nihonbashi-Honcho, Chuo-ku, Tokyo, Japan (Sumitomo Fudosan Nihonbashi Building)
 URL: http://www.hokkosan.co.jp/

HOKKO Sangyo Co., Ltd. was established in 1963 as Hokko Vardal Co., Ltd., a subsidiary that trades the products of Hokko Chemical Industry Co., Ltd. The name was changed to HOKKO Sangyo Co., Ltd. in 1976. It sells antimicrobial and antifungal agents, fine chemicals products, and chemicals for golf courses, non-crop areas, and mushroom cultivation.

Biei Hakudo Industry Co., Ltd.

- Head Office: 1-5-4 Nihonbashi-Honcho, Chuo-ku, Tokyo, Japan (Sumitomo Fudosan Nihonbashi Building)
- Biei Factory: Biei Kyowa, Biei-cho Aza Misawa, Kamikawagun, Hokkaido, Japan
 URL: http://www.bieihakudo.co.jp/

Biei Hakudo Industry Co., Ltd. was established in 1967 to manufacture and sell agricultural chemical bulking agents. Today, it manufactures and sells inorganic copper compounds and hollow glass microspheres (taisetsu balloons).

HOKKO Pax Co., Ltd.



 Head Office: 1-5-4 Nihonbashi-Honcho, Chuo-ku, Tokyo, Japan (Sumitomo Fudosan Nihonbashi Building)

• Okayama Office: 402 Muneage, Tamano-shi, Okayama, Japan

HOKKO PAX Co., Ltd. was established in 1991 as a joint venture of Hokko Chemical Industry Co., Ltd. and HOKKO Sangyo Co., Ltd. to perform packaging of crop protection products. It currently sells petroleum products and other products and administers employee benefits programs for the Hokko Chemical Industry Group.





 Head Office: No.29, Donghai Road, (Jingang Town, Zhangjiagang City) Yangtze River International Chemical Industry Park, Jiangsu Province, China

URL: https://www.hokkochem.com.cn/

Zhangjiagang HOKKO Chemical Industry Co., Ltd. was established as a Chinese subsidiary in 2002 to produce fine chemicals products with a focus on TPP and other products. The company currently conducts sales in China and manufactures TPP derivatives and other products.

HOKKO Chemical America Corporation

 Head Office: c/o Towerview Office Suites, 150 Preston Executive Dr, Suite 201, Cary, NC, U.S.A.

HOKKO Chemical America Corporation is a local subsidiary established in the United States in 2016. Its main business consists of gathering the latest information and expanding sales in North, Central, and South America. It also develops, registers, and promotes crop protection products.

C. Murata & Co., Ltd.



Head Office:	2-1-8 Bingo-machi, Chuo-ku, Osaka-shi,
	Osaka, Japan (Bingo-machi Nomura
	Building)
Tokyo Branch:	1-5-4 Nihonbashi-Honcho, Chuo-ku, Tokyo
	Japan (Sumitomo Fudosan Nihonbashi
	Building)
Shanahai Offica:	Poom 016 Guanghua Dasha, Bailou No

 Shanghai Office: Room 916, Guanghua Dasha, Beilou, No. 868, Maotai Road, Shanghai, China
 URL: http://muratacho.com/index.html

C. Murata & Co., Ltd. is a long-standing company that was established in 1885 as a textile company that handled kimono and silk products. In more recent years, it has transitioned its business model to that of a specialized textile materials trading company, and it currently sells textile materials for industry, bags and shoes, and apparel. It became a group company of Hokko Chemical Industry Co., Ltd. in 2019.

Responsible Care Management

As a company that handles chemical substances, internally we prioritize ensuring safety, health and the protection of the environment from product development through to product disposal, publicly releasing the results of these efforts, and deepening understanding through mutual dialogue.

Basic Policy on the Environment, Safety and Health

We conduct Responsible Care (RC) activities, a voluntary management initiative of the chemical industry to protect the environment and ensure safety and health, based on our Basic Policy on the Environment, Safety and Health and our Responsible Care Activity Policy. These activities encompass the areas of environmental protection, occupational health and safety, process safety and disaster prevention, distribution safety, chemical products safety, and communication with the public.

Basic Policy for the Environment. Safety and Health

C Responsible Care

Revision date: August 1 2012 (Established in September 1996)

We are committed to giving the highest priority to the following initiatives for environment protection, safety and health throughout our business activities, including R&D, manufacturing and sales.

- 1. We ensure the safety of local communities and of our employees by keeping our operations free of occupational incidents and accidents.
- 2. We ensure the safety and health of our stakeholders, including our customers, general consumers, our logistics partners and our employees, through our gathering and organizing of the latest safety information on chemical substances and products, and by providing it to the parties concerned.
- 3. We provide products that can be used by our customers with satisfaction and assurance.
- 4. We strive to reduce our environmental impact throughout the product life cycle, from development to disposal.

The personnel at all of our divisions recognize the importance of our basic policy and strive to make improvements in a continuous way, as well as complying with laws and regulations.

> Ken-ichi Sano HOKKO CHEMICAL INDUSTRY CO., LTD.

Responsible Care Promotion Structure

We have established the Responsible Care Committee, with the President serving as committee chair and officers in charge of business groups and others serving as committee members, to oversee our companywide RC activities.

The Responsible Care Committee deliberates on our Basic Policy on the Environment, Safety and Health and related targets and plans. Business locations and group companies also conduct RC activities and establish a system corresponding to their operations.

Our factories have obtained certifications in quality management (ISO 9001), environmental management (ISO 14001) and occupational health and safety management (ISO 45001).

Responsible Care Promotion Structure



ISO 9001, ISO 14001, ISO 45001 Certifications

Location		Certification Date			
		ISO 9001	ISO 14001	ISO 45001	
	Hokkaido Factory	Dec. 1995	Jan. 2000	Sep. 2020	
Hokko factories	Niigata Factory	Jan. 1995	Mar. 1999	Feb. 2021	
	Okayama Factory	Jan. 1995	Jan. 2000	Apr. 2020	
Group	HOKKO Pax, Co., Ltd., Okayama Office	_	Jan. 2000	Apr. 2020	
companies	Zhangjiagang HOKKO Chemical Industry Co., Ltd.	Nov. 2007	Dec. 2007	_	

RC Internal Audits (Environment & Safety Audits)

The Environment & Safety Team in the Head Office Planning and Management Department regularly conducts RC internal audits of our factories, laboratories, and Group companies. The locations carry out systematic improvements based on the guidance and instructions received in audits.



Responsible Care Committee (Head Office)

Targets and Results of Responsible Care Activities

We set targets for environment and safety issues and conduct an ongoing cycle of improvement activities. We also conduct and publicly release environmental accounting reports to evaluate the costs and benefits of our environmental protection measures.

FY 2020 Responsible Care Activity Results and FY 2021 Targets

Item	FY 2020 Target	Result	Self- evaluation	FY 2021 Target
	Reduce environmental load Companywide energy management and energy conservation	Unit energy consumption YoY: -2.7% (p. 19)	0	Reduce environmental load Visualization of energy, introduction of energy-saving facilities
Environmental protection	Manage wastewater at or below our voluntary management criteria	Management at or below standards (p. 20)	0	Manage wastewater at or below our voluntary management criteria
	Reduce and properly treat waste	Total waste produced YoY: +16% (p. 20)	×	Proper processing of waste material
Occupational health and safety	Eliminate occupational accidents Improve work environments	Lost time injuries: 2 (p. 21)	×	Eliminate occupational accidents Improve work environments
Process safety and disaster prevention	Eliminate plant accidents	Plant accidents: 0	0	Eliminate Plant accidents
Distribution safety	Ensure distribution safety	Encouraged to carry Yellow Cards (p. 22)	0	Ensure distribution safety
Chemical product safety	Ensure the chemical product safety	Provision of Safety Data Sheets (SDS) (p. 22)	0	Ensure the chemical product safety
Social dialogue	Public release of information Exchanges with local communities	Publishing HOKKO REPORT 2020 Community exchanges at business locations (p. 24)	0	Public release of information Exchanges with local communities

Environmental Accounting Environmental conservation cost

		Category	Key Activity and the Outcome	Investment amount	Cost amount
Environmental conservation costs to control environmental impacts that result from key business operations within the business area (business area costs)		esult from key business operations within the		68	375
1		Pollution prevention costs	Prevention of air pollution, water pollution, etc.	27	128
	Breakdown	Global environmental protection costs	Global warming prevention, energy conservation, etc.	35	0
		Resource circulation costs	Waste disposal treatment, waste recycling, etc.	6	246
2	Environmental conservation costs to control environmental impacts that result from key business operations upstream or downstream (upstream/downstream costs)		Collection and proper disposal of used products, distribution accident prevention measures, etc.	0	5
3	3 Environmental conservation costs stemming from administration activities (administration costs)		Implementation and maintenance of the environmental management system, disclosure of environmental information, monitoring of environmental impacts, environmental training of employees, greening measures, etc.	8	77
4	4 Environmental conservation costs stemming from R&D activities (R&D costs)		R&D to curtail environmental impacts, evaluation and testing expenses, etc.	0	27
5	5 Environmental conservation costs stemming from societal activities (societal activity cost)		Disclosure of information to local communities, etc.	0	0
6		for dealing with environmental degradation I remediation costs)	_	0	0
	Total				483

* Investment amount: Capital investment for environmental conservation

Cost amount: Depreciation expenses, maintenance and administration expenses for environmental conservation

* Totals may not match due to rounding.

Environmental Conservation Benefit

Environmental conservation benefit categories	Environmental performance indicators (units)		FY 2019	
Environmental Conservation Benefit	Total energy input	(kL)	11,637	
Related to Resources Input into Business Activities	Amount of input water resources (clean water) (1,0	00 m ³)	425	
	CO ₂ emissions	(t-CO2)	30,109	
Environmental Conservation Benefit	COD emissions	(t)	16.6	
Related to Waste and Environmental Impacts	Total amount of discharged waste, et	c. (t)	5,852	
Originating from Business Activities	Recycled amount	(t)	4,068	
	Amount of final waste disposal	(t)	452	

(Unit: million ¥)

FY 2020	YoY Change
11,960	323
440	15
30,443	334
20.7	4.1
6,717	865
4,950	882
457	5

Economic Benefit Associated with **Environmental Conservation Activities** (Unit: million ¥)

Benefit Details	Amount
Sale of valuable articles	9
* Calculated in conforman- Environmental Accountin published by the Japane Environment and the Em- Accounting Guidelines for Companies published by Committee of the Japan Association.	g Guidelines 2005 se Ministry of the <i>i</i> rionmental or Chemical • the Responsible Care Chemical Industry
* Some data from FY 2019	9 was reviewed and

corrected

Environmental Protection

We calculate the amounts of energy and resources we use, product production volumes, and emissions of substances with environmental load as part of our business activities, and proactively work to save energy, reduce chemical substance emissions, and properly manage waste to protect the environment.

* Some data from FY 2019 was reviewed and corrected.

Hokko Chemical Industry Business Activities, Input, and Output



*1 Of the hazardous substances that contaminate the air (substances requiring priority action), only substances we emit in large amounts are listed.

Conserving Energy

We have put in place a companywide energy management organization, revised our facilities and manufacturing processes, and installed LED lights and other energy-conserving facilities as part of our energyconserving activities.

We installed a photovoltaic power generation system at Central Research Laboratories in September 2020.

Total energy input in FY 2020 increased by 2.8% compared to FY 2019, but unit energy consumption*² decreased by 2.7%.

*2 Unit energy consumption expresses the intensity index against the FY 2016 baseline of 100 by calculating the total intensity rate of change from the weighted average of the intensity rate of change of each location.

Reducing Greenhouse Gas Emissions

The greenhouse gas CO_2 is emitted when using energy and incinerating waste. We are working to reduce our CO_2 emissions by taking actions to conserve energy. CO_2 emissions in FY 2020 increased by 1.1% compared to FY 2019.

*3 Scope 1: Direct emissions from the combustion of fuel and the like *4 Scope 2: Indirect emissions in conjunction with the use of electricity supplied by other companies

Total Amount of Energy Input [Crude Oil Equivalent]





Preventing Water Pollution

Wastewater generated in manufacturing processes is discharged to river and ocean waters after removing water contaminating substances through such treatment processes as neutralization, use of activated sludge, flocculation, and precipitation. We appropriately monitor and measure emissions based on laws and other regulations.

*5 COD: Chemical Oxygen Demand

One measure of wastewater contamination by organic matter, with a higher number indicating higher organic matter pollution. COD emissions are calculated by multiplying average COD by annual wastewater emissions.

Appropriate Waste Management

We appropriately treat waste and promote the 3 R's (Reduce, Reuse, Recycle).

Of the waste that we generate, we incinerate waste able to be incinerated at our locations in accordance with disposal standards.

We contract treatment of waste that cannot be treated at our locations to treatment providers, and select reliable providers by conducting local inspections and other measures.

Our total volume of generated waste^{*6} in FY 2020 increased by 16% from FY 2019.

*6 Waste, etc.: Waste and secondary materials generated during product manufacturing (including materials with value such as waste paper and metal)

Data by Location

• FY 2019 & FY 2020 Environmental Load Data by Location

Item		Hokkaido Factory		Niigata Factory		Okayama Factory		Central Research Laboratories/ Fine Chemicals Research Laboratories	
		2019	2020	2019	2020	2019	2020	2019	2020
Total energy input (crude oil equivalent)	(kL)	230	182	868	853	9,886	10,255	654	670
Waterworks consumption	(1,000 m ³)	3.7	3.4	18.0	15.8	393	413	10.1	8.5
CO ₂ emissions	(t-CO ₂)	583	438	1,749	1,711	26,709	27,139	1,067	1,154
SOx emissions	(t)	0.2	0.2	0.0	0.0	5.9	5.1	0.0	0.0
NOx emissions	(t)	0.2	0.2	0.2	0.1	11.7	11.7	0.5	0.4
Total wastewater	(1,000 m ³)	3.7	3.4	11.9	16.4	1,915	1,890	12.9	11.1
COD emissions	(t)	0.02	0.03	0.01	0.02	16.6	20.6		
Total waste emissions	(t)	96	72	422	479	4,986	5,980	85	95

COD^{*5} Emissions



Total Waste Volume/Total Emissions, Final Disposal Volume



Occupational Health and Safety, Process Safety and Disaster Prevention

With safe operations and elimination of occupational accidents given highest priority, we conduct independent health and safety activities as part of our efforts to create workplace environments that are safe and easy to work in.

Occupational Health and Safety Initiatives

With safe operations and elimination of occupational accidents given highest priority, we have put in place a health and safety management system and conduct a range of activities related to health and safety including activities to predict risk (called "KY") and 5S (translated as "Sort, Set in order, Shine, Standardize, Sustain") activities. All of our factories have also obtained ISO45001 certification, an international standard for occupational health and safety management systems.

Education and Training

We provide education on the health and safety information employees need to know in operations, including our basic approach to safety and safe handling of chemical substances, and promote obtaining of qualifications required in operations. To prepare for emergency situations, we conduct disaster preparedness drills and education in the unlikely event of a fire, chemical substance leak, natural disaster, or other type of disaster. In addition to the health and safety education we have conducted to date, we also conduct trainings on sensing danger using simulations of actual dangers to improve employees' ability to perceive danger.





(Okavama Factory)

Emergency drills (Hokkaido Factory)



Breathing apparatus training (Okayama Factory)

Occurrence of Occupational Accidents

In FY 2020, there were two occupational accidents that resulted in lost work time. In response, we are taking measures to prevent reoccurrence including improving equipment and reviewing work techniques. In addition, we share accident information throughout the Group and are working to prevent the occurrence of similar accidents.

Lost Time Injury Rate (LTIR)



LTIR: Indicator of the frequency of lost time injuries (Number of lost time injuries) ÷ (Total working hours) × 1 million

Severity Rate



0.20 -----



Severity rate: Indicator of the severity of occupational accidents (Number of work days lost) ÷ (Total working hours) × 1,000

Chemical Product Safety, Distribution Safety

Each business location takes measures to properly handle and manage chemical substances. We clearly specify the product properties and handling methods for the relevant parties and update information as necessary.

Chemical Substances Management

Chemical substances are useful and indispensable to our way of life, but their improper management can lead to environmental contamination and accidents, and carries the risk of adversely affecting human health and ecosystems.

We comply with laws and regulations in handling chemical substances. We also collect safety information, conduct safety tests and risk assessments, and implement appropriate management of chemical substances corresponding to the product stage (R&D, manufacturing, etc.).

Safety Data Sheets

We prepare Safety Data Sheets (SDSs), which list important information for the safe handling of chemical products, for all of our products, and use them when providing information to customers and conducting employee education. SDSs for our leading crop protection products can be found on our website.



https://www.hokkochem.co.jp/business/pesticide/product-sds



Safety Data Sheet (SDS)

Distribution Safety

Our factories periodically hold consultations with shipping companies to mutually coordinate and implement environmental and safety initiatives in distribution. To prepare for the unlikely event of an accident while products are being shipped, drivers carry Yellow Cards^{*1} with them listing information such as who to contact and what measures to take in an emergency. To complement the Yellow Card system, we have introduced the Container Yellow Card (labelling system)^{*2}, which lists the guide number^{*3} and UN number^{*4} on cardboard boxes.



Yellow Card

Container Yellow Card (example on cardboard box)

- *1 Yellow Card (emergency contact card): Yellow paper printed with instructions for the driver, fire fighters, police, and other relevant parties to take in the event of an accident. The instructions are given the name "yellow card" because they are printed on yellow paper to make them easy to find in an emergency.
- *2 Container Yellow Card (labelling system): To supplement the Yellow Card system, cardboard boxes and product labels list the guide number and UN number.
- *3 Guide number: In the emergency response guidelines published by the Japan Chemical Industry Association, chemical substances are classified into 62 groups and assigned numbers based on their common hazards and emergency response measures. In an emergency, information about the emergency response measures to take can be obtained from the guide number.
- *4 UN number: Four-digit numbers that identify hazardous materials, assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and published in the Recommendations on the Transport of Dangerous Goods (Orange Book).

With Stakeholders

Our corporate activities would not be possible without the understanding and support of our stakeholders. Through various forms of engagement with stakeholders, we aim to build upon our trustworthy relations.

With Customers

We work to ensure safety and product quality in all the stages of research and development, manufacturing, logistics, and sales. We listen to feedback from customers and strive to improve our technologies and quality.

Quality Assurance Structure

To stably supply products of excellent quality able to satisfy customers, our factories have obtained ISO 9001 certification, the international standard for quality management systems. After rounds of examinations for maintenance and updates by the certifying body, we obtained the 2015 version of the certification in 2018. We conduct an internal quality audit once a year to confirm whether the management system at our factories is being appropriately and effectively implemented, and factory managers periodically make revisions to the system.

In the Fine Chemicals Business group, we have set up the Quality Inspection Team and the Quality Assurance Team independent from the Production Department to augment our quality assurance structure.

Communication with Customers

Sales staff in the Crop Protection Products Business group in Japan have obtained the JGAP^{*1} instructor qualification to better propose products that meet customer requests.

The Fine Chemicals Business group actively introduces our products and technologies through Web conferences with customers in Japan and overseas and other means.

*1 JGAP: Japan Good Agricultural Practice. An agricultural production management method for the purpose of ensuring the safety of agricultural crops.

With Shareholders and Investors

We established a disclosure policy, disclose information appropriately and in a timely manner, and strive to hold constructive dialogue with shareholders and investors.

General Meeting of Shareholders

We position the general meeting of shareholders as an important opportunity to engage in direct communication with all of our shareholders. At the general meeting of shareholders, we use visuals to supplement explanations of our business situation, business plans, and strategy. The notice of convocation of the general meeting of shareholders is released and sent at an early date. We also set up the "Hokko Now" corner, where we introduce our business performance over the last year as well as new products and other topics of note as another way to expand our information sharing.

Management Plan and Financial Closing Briefings

We hold briefings for institutional investors and analysts to discuss our management plan and financial closing. We also aim to build good trustworthy relations with investors through regularly held IR meetings. We conducted the briefing for FY 2020 financial results and the new management plan starting in FY 2021 online as a measure to prevent the spread of COVID-19.

Expanding Our Website

We release timely and appropriate IR-related information, including about our management policy and strategy, business performance, and financial information, on our website to deepen understanding for the Hokko Group.

We launched the "Quick and Easy HOKKO" website (in Japanese) to promote understanding of our origins, the Crop Protection Products Business, and the Fine Chemicals Business using easy-to-understand graphics and photos.

In 2020, we created a new page titled "Hokko Chemical Industry and the SDGs" to present information on how our business activities are contributing to achieving the SDGs.

With Local Communities

Through offering tours and hands-on workshops and participating in volunteer activities, our business locations seek out opportunities for communication with local residents.

Offering Tours and Hands-on Workshops

Our locations give tours and hands-on workshops and seminars for students. Our factories provide briefings on product manufacturing processes, safety and health, and environmental conservation efforts. Our laboratories provide briefings on a range of tests to validate safety and efficacy that are required in the development of crop protection products. We are currently limiting the number of observers in order to prevent the spread of COVID-19.



Receiving high school student interns (Hokkaido Factory)

Social Contribution Activities, Communication with Communities

Our locations open their facilities such as baseball grounds to the community. We participate in cleanups around our business locations, collect waste materials from the community, and participate in various community events.

We also take part in blood drives, with a mobile blood drive visiting our factories each year. In July 2020, we received a commendation from the Minister of Health, Labour and Welfare for the blood drives conducted at the Niigata Factory.

Our laboratories have concluded memorandums with local governments to provide use of our sites as emergency shelters in the event of a disaster.



A traffic safety campaign (Hokkaido Factory)

With Employees

We are developing human resources to tackle new fields and creating workplaces where employees can demonstrate their talents to achieve sustained growth for our group.

Human Resource Development

To develop human resources who think for themselves and work with autonomy to tackle challenges in new fields, we implement various educational programs including rank-based trainings and practical workshops and sending employees to language schools. We also support employees to improve their skills by encouraging and subsidizing obtaining certifications (PhD, JGAP instructor, etc.) and distance learning directly and indirectly related to business.

Work-Life Balance

As part of realizing a work-life balance, we believe it is important to create workplaces where employees feel it is easy to work.

In addition to child care and family care leave programs, we also aim to realize work-life balance through other leave programs offering half-day paid leave, hourly paid leave, and planned paid leave. Promoting changes to how employees work from multiple angles will lead to increased productivity by individual employees, reductions in long working hours, and a higher rate of employees taking annual paid leave.

Physical and Mental Health Management

We conduct annual health checkups and stress checks at all of our locations for the purpose of managing employees' physical and mental health. We also offer health consultations and in-person guidance with an industrial physician as necessary. We are working to expand our support system, such as by setting up a hotline where employees and their families can receive consultations on health and medical treatment and mental health counseling in cooperation with a contracted outside party.

COVID-19 Countermeasures

The Hokko Group is taking action with the highest priority on the safety of employees and their family members, business partners, and others while working to maintain business operations. In addition to encouraging telecommuting, staggered commuting times, and alternate-day attendance, we installed thermal cameras and acrylic panel dividers, require masks, and are taking other measures to prevent the spread of COVID-19 at workplaces.

Corporate Governance

At Hokko Group, we are taking steps to further improve corporate governance with the aim of achieving sustained growth and improving our corporate value.

Basic Approach

Through implementation of our corporate philosophy and basic management policy, we are pursuing the best model of corporate governance for our company to achieve sustained growth and improved mid- to longterm corporate value.

We are taking steps to improve our corporate governance based on our understanding that working together with stakeholders and maintaining a strong awareness of compliance are vital to achieving sustained growth and improving our corporate value in the mid- to long term.

Overview of Corporate Governance Structure

We adopt the form of a company with corporate auditors. The Board of Directors supervises the execution of duties of directors, and corporate auditors conduct audits. We adopt a corporate officer system for the execution of operations. Corporate officers are tasked with this execution under the supervision of the Board of Directors. In addition to outside corporate auditors with a high level of expertise appointed to conduct audits, we work to strengthen our audit function through the integrated efforts of corporate auditors, an internal audit team independent of divisions in charge of execution of operations, and accounting auditors.

Corporate Governance Structure



Compliance

We position compliance as a management issue of the highest priority. To ensure that operations are conducted both fairly and efficiently, we have established our Basic Compliance Policy, the Hokko Chemical Industry Group Code of Conduct, and our Basic Regulations on Legal Compliance. Executives and staff base their conduct on laws and regulations as well as on common sense and propriety.

The Compliance Committee, which is made up of a chairperson and members appointed by the president, oversees deliberations on basic policy on compliance and plans and investigations of compliance violations. Corporate auditors and the internal audit team conduct audits of compliance by business divisions and Group companies. Furthermore, we have set the month of September as Compliance Month and hold training in business divisions and departments. We also use our intranet system to disseminate compliance knowledge and information.

The Group has established internal and external hotlines and created systems that enable anonymous reporting and consultation. We strictly protect the privacy and prohibit any detrimental treatment of persons who make reports in accordance with internal rules and are working to increase effectiveness.

Basic Compliance Policy

Compliance with Laws and Regulations

We conduct our activities in compliance with Japanese and international laws, regulations, and rules as well as with our internal regulations, and with strong ethical values and social propriety.

Respect for Diversity

We respect the human rights, character, and individuality of all people irrespective of nationality, gender, age, or belief system, and strive to prevent harassment and other unfair treatment in the workplace.

Fair Company Activities

We conduct business under fair, transparent, and free competition based on reasonable conditions.

Proper Handling of Information

We appropriately manage information including that received from our business partners, and release information to our stakeholders and investors as appropriate.

Exclusion of antisocial and criminal elements

We have no relationships with anti-social forces with the resolve to eliminate their influence in society.

Protection of the Global Environment

We strive to prevent environmental pollution to protect the global environment and reduce environmental impacts.

Prevention of Misconduct

We enhance the effectiveness of systems to prevent misconduct in order to prevent damage to our corporate value.

Integrity in Responding to Misconduct

When misconduct does occur, we conduct an investigation, identify the causes, and take the appropriate action.

Compliance Promotion Structure



Risk Management

We established Risk Management Rules for the comprehensive management of risk. Overall managerial risks are managed by the officer responsible for the Planning and Management Group, and risks in each business field are identified, managed, and responded to by the directors responsible for those businesses. If a major risk occurs, directors responsible for business and others immediately report to the president in accordance with the Management Risk Response Rules. In cases where a major legal violation or loss occurs or is expected to occur, a Response Headquarters chaired by the president is established and loss mitigation and prevention measures are immediately implemented.

We will conduct information security training for all officers and employees and work to maintain and enhance information security throughout the Group.

Business Continuity Plan

As a part of our risk management programs, we drafted a business continuity plan (BCP) in order to be prepared for a natural disaster, such as an earthquake occurring directly under the Tokyo region, an outbreak of infectious disease, or a fire occurring in a factory, for the purpose of minimizing the damage to our business assets, continuing our core business operations, and quickly recovering from the disaster.

This BCP defines the necessary policy, the structure, and other basic matters for sustaining a stable product supply, and aims to fulfill our supply responsibility as a manufacturer by continuing our business operations even in the event of a major disaster.

In addition, to ensure the effectiveness of our BCP, every year we conduct education and drills, and make revisions where issues are identified to enhance the content of our BCP and review new potential issues.

We also introduced a safety confirmation system to quickly confirm the safety of all of our employees in the event of a major earthquake or other disaster. We conduct regular tests of this system and make other preparations for unforeseen events to foster an awareness of crisis management among employees on an ongoing basis.

Complaint Response Team

We seek to improve our quality management system in manufacturing divisions to prevent the occurrence of product complaints. We believe that in the event of a product complaint, responding promptly, accurately, and with integrity and striving to prevent recurrences is of utmost importance to remain a company that is trusted by society.

We define complaints as the spectrum of expressions of dissatisfaction with our company, from complaints about our products to dissatisfaction with our sales, technologies, and other services, complaints related to our factories and laboratories, and other complaints from our stakeholders. We have put in place a response team to deal with complaints.

We use the PDCA cycle to investigate the causes, process complaints, and devise prevention measures. A robust system to deal with complaints facilitates improvements in our business activities, quality, and operations as well as improvements in our service to our customers and all other stakeholders.

Financial Data

Consolidated management indicators

		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Sales	(million ¥)	40,117	39,826	41,015	41,986	39,641
Ordinary income	(million ¥)	2,777	3,541	4,081	3,751	3,258
Current net income attributable to parent company shareho	older (million ¥)	1,965	1,989	2,944	2,818	2,400
Comprehensive income	(million ¥)	1,612	3,642	2,604	2,624	4,508
R&D expense	(million ¥)	1,578	1,484	1,495	1,483	1,442
Depreciation cost	(million ¥)	1,444	1,505	1,349	1,275	1,496
Capital investment	(million ¥)	1,880	1,236	2,257	2,733	593
Net assets	(million ¥)	18,877	21,926	24,179	26,356	30,363
Total assets	(million ¥)	39,974	40,438	40,421	43,398	48,201
Net assets per share	(¥)	685.04	809.61	892.77	973.17	1,121.13
Current net income per share	(¥)	71.30	72.51	108.69	104.07	88.61
Diluted net income per share	(¥)	_	_	_	_	_
Capital adequacy ratio	(%)	47.2	54.2	59.8	60.7	63.0
Return on equity (ROE)	(%)	10.8	9.8	12.8	11.2	8.5
Price-earnings ratio	(ratio)	5.2	9.9	5.1	5.7	12.7
Cash flow from sales activity	(million ¥)	3,628	5,161	3,360	3,923	4,590
Cash flow from investment activity	(million ¥)	(1,694)	(1,294)	(2,142)	(2,235)	(1,885)
Cash flow from financial activity	(million ¥)	(2,353)	(3,397)	(1,391)	(2,017)	361
Final balance of cash and cash equivalents	(million ¥)	961	1,454	1,259	904	3,956
No. of employees [Average number of temporarily hired workers besides reg	ular employees]	765 [157]	751 [147]	739 [147]	768 [147]	763 [138]

(Notes)

Sales do not include consumption tax.
 Diluted net income per share is not listed since there are no dilutive shares.



* Amounts less than ¥100 million are rounded off







Consolidated balance sheet

	FY 2019 (November 30, 2019)	FY 2020 (November 30, 2020)		FY 2019 (November 30, 2019)	FY 2020 (November 3 2020)
Assets			Liabilities		
Current assets			Current liabilities		
Current assets			Bills and accounts payable	6,019	5,65
Cash and deposits	904	3,956	Short-term debts payable	287	43
Bills and accounts receivable	11,243	11,272	Long-term debts payable within one year	500	45
Products and finished goods	10,751	9,981	Accounts payable	2,855	1,78
Products in progress	478	498	Income taxes payable	499	33
			Consumption taxes payable	9	53
Raw materials and stored goods	4,529	4,755	Accrued expenses	3,369	3,4
Other	463	687	Reserve for product returns	36	13
			Other	109	Ę
Total of current assets	28,368	31,149	Total of current liabilities	13,682	12,79
Fixed assets			Fixed liabilities		
Tangible fixed assets			Long-term debts	450	1,20
Buildings and structures	4,841	4,500	Liabilities related to post- employment benefits	2,727	2,6
(net)	Deferred tax liabilities		Deferred tax liabilities	0	7
Machinery and vehicles (net)	3,278	2,696	Reserve for product returns (long term)	71	3
Land	970	966	Other	112	(
Construction work-in-	136	198	Total of fixed liabilities	3,360	5,04
progress			Total of liabilities	17,042	17,8
Other (net)	415	354	Net assets		
Total of tangible fixed assets	9,640	8,714	Shareholder's equity		
Intangible fixed assets	619	510	Capital	3,214	3,2
intangible lixed assets	013	510	Capital surplus	2,608	2,60
Investments and other assets			Earned surplus	18,970	20,86
Investment securities	4.499	7 590	Treasury stock	(1,310)	(1,31
Investment securities	4,499	7,582	Total of shareholder's equity	23,482	25,38
Long-term loans	13	13	Accumulated other comprehensive income		
Deferred tax assets	56	42	Valuation difference on other	0.040	лл
Other	226	214	available-for-sale securities	2,243	4,4
Allowance for doubtful	(22)	(22)	Foreign currency translation adjustment	79	1(
accounts Total of investments and			Accumulated adjustment related to post-employment benefits	551	46
other assets	4,771	7,828	Total of accumulated other comprehensive income	2,873	4,98
Total of fixed assets	15,030	17,052	Total of net assets	26,356	30,36
Total of assets	43,398	48,201	Total of liabilities and net assets	43,398	48,20

(Unit: million ¥)

	FY 2019	FY 2020
	(From December 1, 2018 to November 30, 2019)	(From December 1, 2019 to November 30, 2020
Net sales	41,986	39,641
Cost of goods sold	31,176	29,388
Gross profit margin	10,810	10,252
Reversal of provision for sales returns	102	107
Provision for sales returns	107	493
Gross profit - net	10,805	9,866
Selling expenses and general administrative expenses	7,904	7,580
Operating income	2,902	2,287
Non-operating income		
Interest received	2	145
Dividends received	492	373
Commission received	432	464
Other	129	138
Total of non-operating income	1,055	1,120
Non-operating expenses		
Interest paid	51	45
Foreign exchange loss	99	43
Litigation-related expenses	35	31
Other	21	29
Total of non-operating expenses	206	149
Ordinary income	3,751	3,258
Extraordinary income		
Fixed asset disposal income	20	_
Gain on sale of securities investments	16	8
Gain on sale of fixed assets	22	219
Total of extraordinary income	58	227
Extraordinary loss		
Loss on sale of fixed assets	81	51
Losses from disasters	4	13
Investment securities impairment losses	_	36
Compensatory damages	_	250
Other	6	35
Total of extraordinary loss	91	384
Current net income before taxes	3,719	3,101
Corporate tax, resident tax, and business tax	919	812
Adjustment for corporate tax, etc.	(19)	(111
Total of corporate tax, etc.	900	701
Current net income	2,818	2,400
Current net income attributable to parent company	2,010	2,400

Company Overview

Corporate Profile

Corporate name: Hokko Chemical Industry Co., Ltd. Head office: 1-5-4 Nihonbashi-Honcho, Chuo-ku, Tokyo 103-8341 Japan Established: February 27, 1950 Capital: 3,214 million yen (as of Nov. 30, 2020) Listed exchange: First Section of the Tokyo Stock Exchange President: Ken-ichi Sano No. of employees: Non-consolidated: 636 Consolidated: 763 (as of Nov. 30, 2020)



Stock Information (as of Nov. 30, 2020)

Total no. of issuable shares: 92,000,000 Total no. of issued shares: 29,985,531 No. of shareholders: 4,167

Shareholder distribution by holder



Shareholder name	No. of held shares (1,000 shares)	Shareholding (%)
Nomura Shokusan Co., Ltd.	2,103	7.77
Sumitomo Chemical Co., Ltd.	1,968	7.27
Custody Bank of Japan, Ltd.(trust account)	1,742	6.43
Resona Bank, Limited.	1,352	4.99
The Master Trust Bank of Japan Ltd. (trust account)	1,246	4.60
Hokko Chemical Industry Employee Shareholding Association	1,154	4.26
The Norinchukin Bank	868	3.21
Nomura Holdings, Inc.	836	3.09
National Federation of Agricultural Cooperative Associations (ZEN-NOH)	801	2.96
Nomura Real Estate Holdings, Inc.	709	2.62

Major Shareholders

Business description: Crop Protection Products Business

Manufacture and sale of insecticides, fungicides,

herbicides, plant growth regulators, and related products Fine Chemicals Business

Manufacture and sale of pharmaceutical and agrochemical intermediates, raw materials for electronics components, catalysts, raw materials for functional polymers, raw materials for fine ceramics, preservatives*, antifungal agents*, and related products* * These products are sold only in Japan.

URL: https://www.hokkochem.co.jp/english

Shares of treasury stock are also not included in calculations of shareholding percentage.



Origin of the company emblem symbolizing good harvests in Japan

Our company emblem is made of a "seed leaf" designed from the character for "north" (\pm) used in the corporate name of Hokko. The round shape (\bigcirc) symbolizes the world, the universe, or perfection, and the seed leaf (\uparrow) suggests fledgling plants. The seed leaf symbolizes our power to grow in the world like agricultural products that grow large with crop protection products and water.



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