

Something **Better** with Chemicals

The past 100 years and the next 100 years. Something Better with Chemicals for Society and the Future

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Editorial Policy:
This report is issued to explain the Group's corporate value creation initiatives to all stakeholders in easy-to-understand terms. The report includes detailed information on the status of activities and data in order to help deepen understanding of the Group's business activities and ESG-related initiatives.

Reporting Period:
Fiscal 2022 (April 1, 2022 – March 31, 2023)
(some parts of this report include activities undertaken outside the reporting period)

Reporting Entities:
OSAKA SODA Co., Ltd., and OSAKA SODA Group companies (however, for non-financial data and some other parts, the scope of data is different.)

Note Regarding Outlook:
This report includes the outlook for such items as future plans and strategy. Actual results may differ from the outlook for various reasons.

2018 :
Commenced manufacture of non-phthalate allyl resin

2017 :
Commenced manufacture of acrylic rubber
Opened Research & Development Center
Expanded into manufacturing analytical equipment such as columns

2007 :
Commenced manufacture of modified silica gel

2006 :
Commenced manufacture of high-purity epoxy resin

2001 :
Commenced manufacture of modifying agent for low fuel consumption tires
Expanded into the resource recycling business

1994 :
Commenced manufacture of active pharmaceutical ingredients (APIs) and their intermediates

1992 :
Started production of silica gel (purification materials for pharmaceuticals) for liquid chromatography

1990s -
Entered healthcare business

1980s:
Developed electrode business

1979 :
Started production of epichlorohydrin rubber

1978 :
Commenced manufacture of allyl ethers

1971 :
Built Mizushima Plant

Commenced integrated manufacture of Allyl Chloride (AC) and Epichlorohydrin (EP)

1962 :
Started production of diallyl phthalate (DAP) resin

1961 :
Opened Research Center

Commenced manufacture of allyl chloride (AC)

1960s -
Expanded into the organic chemicals field to create new value added through unique chemical technologies

1952 :
Built Matsuyama Plant


1931 :
Built Amagasaki Plant

1916 :
Built Kokura Plant


1915 :
Osaka Soda established

1913 :
Established Japan's first manufacturing method for caustic soda using electrolysis

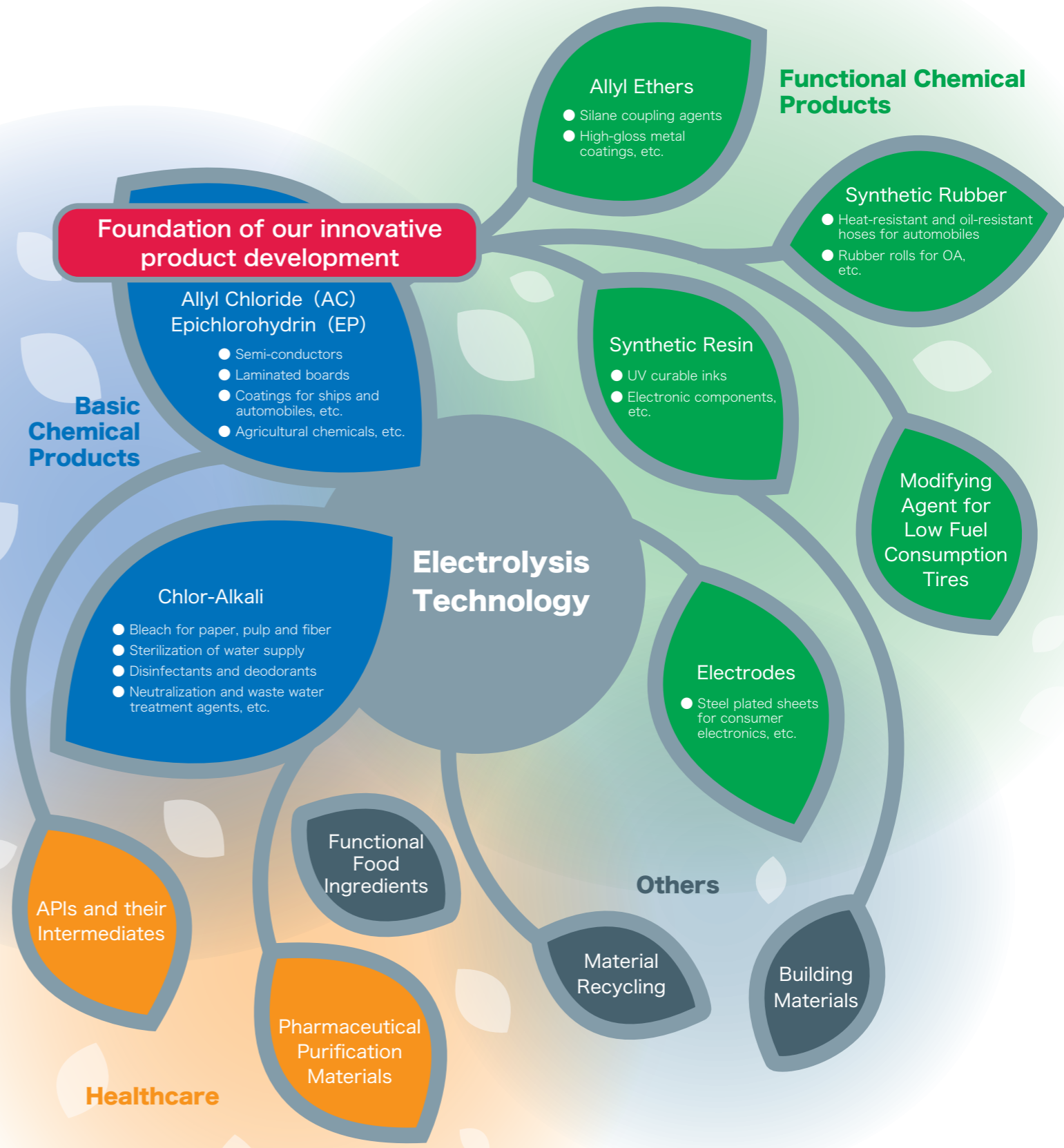
1913 -
Contributing to industrial development as a pioneer of electrolysis technology



Modified silica gel production facilities



Epichlorohydrin (EP) production facilities



Group Mission Statement

To contribute to the realization of a safe and affluent society through our creative technologies and innovative products

Based on our mission statement of “to contribute to the realization of a safe and affluent society through our creative technologies and innovative products,” we aim to realize “our ideal image” when we celebrate the 120th anniversary of our founding.

November 2023
President and CEO

Kenshi Terada

Capturing the global niche top position through unique technology capabilities

With the founding of the Company as a pioneer in the electrolytic soda industry in 1915, we launched our chlor-alkali business. Osaka Soda has grown into a company that boasts multiple products with a global niche top (GNT) share both in Japan and overseas through the introduction of derivative products based on this start.

The history of the Company, which has produced competitive, unique products, reveals that our start was establishing Japan's first electrolytic method based on domestic production technology. Considering that when the Company was founded, the start of the soda industry, Japanese companies conducted business by introducing technology from overseas, I think that we possessed a venture spirit that embodies perseverance and the ability to achieve results. After that, we entered the organic chemical field and built an AC/EP chain that consists of synthetic resin, synthetic rubber, and allyl ethers, which are made from allyl chloride (AC) and epichlorohydrin (EP), and in the field of inorganic chemicals, we expanded business into silica gel used in the manufacturing of medical products as one part of our development of caustic soda derivative products.

We have been able to beat out the competition and capture the global top niche position with our products because of not only our technology capabilities that have made it possible to discover unique catalysts, develop new grades, and develop new uses but also our production technology capabilities, such as improvement in yields and processes.

These two technology capabilities are the core of our “innovative product development” and our strength. Furthermore, we have carried on the unyielding spirit fostered during this process.

Record profit and progress in establishing foundation for further growth

In fiscal 2022 (the fiscal year ended March 2023), the final year of the previous medium-term management plan EMPOWER THE NEXT - 22, we posted record profit at all levels for the second consecutive year, with net sales surpassing 100.0 billion yen for the first time after applying revenue recognition standards. This was primarily because the market for epichlorohydrin, our main basic chemical product, was firm, particularly in the first half. Furthermore, we expanded allyl ethers production capacity in fiscal 2021, and demand for this product for use in functional coatings and electronic materials rose. Dramatically growing the high value-added healthcare business into a core business was also a major factor behind the Group being able to increase earnings even during periods of uncertainty.

The previous medium-term management plan, which covered the two years from fiscal 2021, was positioned as a period to build up our strength following the COVID-19 pandemic with an eye toward the Group's “vision” for fiscal 2025. When formulating the plan, we deliberated on not only each business and product strategy but also the ideal form of each division, such as the corporate division; depicted “our ideal image” for fiscal 2035, the 120th anniversary of the Group's founding; and worked back from there to set various issues that should be addressed to “EMPOWER” the Company, which we formulated into basic policies.

Of the four basic policies, the one that I am most focused on is “reforming corporate culture and organizational culture.” During the many years I was assigned overseas, I came to think that the low productivity that plagues the Japanese manufacturing industry is because of slow decision making and the large number of wasteful operations. In order to free ourselves of this character and gain the speed to compete globally, it is important that all employees thoroughly work in a highly productive manner. We formulated a new system of principles in 2021 to align our efforts to implement reforms. Through the previous medium-term management plan, we reinforced our organization and human resource capabilities by promoting not only operational reform activities based on this but also human resources system reforms and greater operational efficiency.

As for “building a resilient business foundation,” we introduced a division-based organizational structure, in which each of the divisions—chemicals, chemical specialties, and healthcare—conduct integrated manufacturing, sales, and development, and revised the structure into one that makes it possible to flexibly and quickly develop and implement strategies from a broad perspective, including

expert knowledge and related fields. Over the past two years, we were able to move the Kokura Plant to Kitakyushu and steadily make investments in growth fields, such as reinforcing facilities for our various products, including allyl ethers, pharmaceutical purification materials, and APIs and their intermediates.

Turning to “promotion of market-in-type development,” we have succeeded in developing new materials that we have high expectations for in the future, such as silver nanoparticles for power semiconductors and materials for next-generation batteries, including semi-solid state batteries, by leveraging our unique technology acquired in global niches. On the other hand, one issue is the speed from development to product launch. There is still plenty of room to refine our efforts to create a system that directly ties customers’ opinions to R&D, sets highly precise development topics driven by business divisions, and quickly launches products.

In regard to “efforts to achieve the SDGs,” we have set a basic policy and materiality and established a Sustainability Committee as one part of the governance system in order to create a foundation to promote sustainability in the future. Of course, we will promote initiatives to achieve medium- and long-term goals, such as reducing greenhouse gas (GHG) emissions, but will also expand disclosure of non-financial targets by issuing an integrated report and other measures.

Aiming to achieve “our vision” with an eye on “our ideal image”

Through the new medium-term management plan “Shape the Future - 2025 (fiscal 2023 to 2025),” which was announced in November of 2023, we are working to realize “our vision” for 2025, which was formulated with an eye on “our ideal image” for fiscal 2035, the year we celebrate the 120th anniversary of the Group’s founding.

Although the release of our new medium-term management plan was delayed half a year because of malfunctions with the main equipment at the AC production facilities of the Mizushima Plant in April 2023, we have steadily implemented various measures, even before releasing the plan, because no changes were made to “our vision” and strategies we should implement to achieve that vision.

In light of changes that the Group faces, such as adapting to changes in the business environment, maximizing business growth, creating new business opportunities, and meeting the demands of society,

we clearly indicated in the new medium-term management plan, the issues that the various divisions should unite to address in order to achieve sustainable growth. Touting “continuous strengthening of our base in existing businesses,” “strengthening of new product creation capabilities,” and “promotion of sustainability management” as our basic policies, we will implement concrete measures based on set KPI.

Earnings targets for fiscal 2025, the final year of the plan, are net sales of 123.0 billion yen, operating income of 18.0 billion yen, and ROE of 10% or more, and we will continue to reinforce our business foundation to achieve further growth in the future through aggressive strategic investments in R&D and growth fields such as healthcare.

Promoting sustainable management for sustainable growth

The Group has set a Basic Policy on Sustainability of “aiming to combine contributing to the realization of a sustainable society through our business activities with enhancing our corporate value.” Having designated the four key issues of providing social value through business, strengthening business foundations, developing human resources, and strengthening CSR activities as materiality based on this policy, we ascertain the state of achieving KPI for each materiality and manage progress in achieving them, with the Sustainability Committee playing a central role.

Furthermore, the Group considers human resource development a pillar for medium- and long-term growth, set a human resource policy of “self-disciplined members of society” and “people who continuously achieve personal growth,” and accelerated investment in human capital in order to transform into a “company where employees can fully demonstrate their abilities,” which is “our ideal image” for 2035. Our goal is for all employees to make full use of their abilities and contribute to the growth of society and the Group by not only creating a work environment that incorporates the values of diverse human resources and provides employees a sense of work satisfaction but also revising our human resource and training systems.

Embodying “our ideal image” and meeting the needs of stakeholders

Based on the Group’s mission statement of “to contribute to the realization of a safe and affluent society through our creative technologies and innovative products,” we recognize that we have to implement the various measures in the new medium-term management plan and achieve “our ideal image” for 2035 to meet the needs of stakeholders.

In fiscal 2023 (the fiscal year ending March 2024), we caused substantial trouble and concern for stakeholders because of malfunctions in the main equipment used at AC production facilities that occurred at the beginning of the fiscal year. We will continue to do all that we can to fully repair the facilities by the end of the fiscal year as planned and return to stable and safe operation as quickly as possible. Although we expect profit for the full fiscal year to fall substantially, we will continue to pay a stable dividend. Over the three years of the new medium-term management plan, we will conduct stock buybacks and aim to pay a total shareholder return ratio of 40% by maintaining the basic policy related to dividends.

Because we are working to actively provide information to shareholders and investors through such efforts as appropriate and timely disclosure and the release of this integrated report and to communicate with various stakeholders, we hope for your greater understanding and continued support.



“Our ideal image” for 2035, the 120th anniversary of our founding

To put the new philosophy system into practice and root it in the corporate culture

- Build a resilient and flexible business foundation supported by the Chemicals, Functional Chemicals, and Healthcare businesses
- Create next-generation pillars of earnings in the fields of Mobility, Information and communication, Environment and energy, and Health and healthcare
- Become a company where employees can fully demonstrate their abilities

Shape the Future - 2025 (FY2023-FY2025)

“Our vision” for 2025

- For the Basic chemicals business, strengthen resistance to changes in the business environment and generate stable profit by reinforcing existing businesses, creating new businesses, and expanding the scale of business
- For the Functional chemicals business, maintain and expand the market share of global niche-top products as Osaka Soda’s growth engine by expanding existing businesses and developing new applications and materials
- For the Healthcare business, expand into growth fields such as biopharmaceuticals in response to changes in pharmaceutical modalities
- Establish a development system for the continuous launch of new products

EMPOWER THE NEXT - 22 (FY2021-FY2022)

Group Mission Statement To contribute to the realization of a safe and affluent society through our creative technologies and innovative products



Osaka Soda has captured the global niche top share with many of its product lines.

History of developing strengths

< Succeeded in being first to domestically manufacture caustic soda in Japan using unique electrolysis technology and entered undeveloped, promising market >

Osaka Soda's current strength dates back to its success in being the first company in Japan to undertake industrial-scale production of caustic soda using a unique technology in 1913. Through the process of launching domestic production, we were able to establish a manufacturing method using unique technology, which was more efficient than overseas technology.

The Group's opportunity for strong growth materialized when it started to undertake propylene chlorination while searching for an effective use for chlorine co-produced in the caustic soda manufacturing process. In 1961, Osaka Soda succeeded in manufacturing allyl chloride through propylene chlorination before other companies in the industry at that time could fully enter the market. While commercializing allyl chloride, we also succeeded in commercializing 1,3-Dichloropropene (D-D), whose use as an agrochemical raw material was being promoted at that time by the Ministry of Agriculture as a measure to advance farming.

After that, Osaka Soda developed allyl chloride derivatives. In 1962, we developed a unique manufacturing method by introducing technology from overseas and were the first company in Japan to successfully launch industrial-scale production of DAP resin at the Matsuyama Plant. Furthermore, having expanded into the production of epichlorohydrin, we launched integrated manufacturing of a range of products from allyl chloride to epichlorohydrin at the Mizushima Plant in 1971.

Osaka Soda succeeded in commercializing epichlorohydrin rubber as a derivative product from epichlorohydrin. After emission regulations grew stricter in 1978, its use as a car part increased on account of its outstanding heat resistance, oil resistance, and low-temperature properties.

From the second half of the 1970s through the 1980s, we developed allyl ethers as derivatives of allyl chloride and epichlorohydrin. Because of this, we were able to build an allyl chloride (AC)/epichlorohydrin (EP) chain.

Osaka Soda also expanded into the healthcare field through the development of derivatives from caustic soda through a different chain. After developing derivatives from the production of sodium silicate, we launched production of pharmaceutical purification materials (silica gel for liquid chromatography) in 1992. Furthermore, we entered the APIs and their intermediates business in 1994 when we developed a method to manufacture optically active substances by applying technology used for epichlorohydrin waste-water treatment.

< New target niche field: Capture first mover advantage >

Through the application of technology that it possessed when it was founded and fusion of that with newly obtained technology, Osaka Soda has grown by quickly entering new fields and capturing the first mover advantage. When developing new fields, we selected fields in which we could

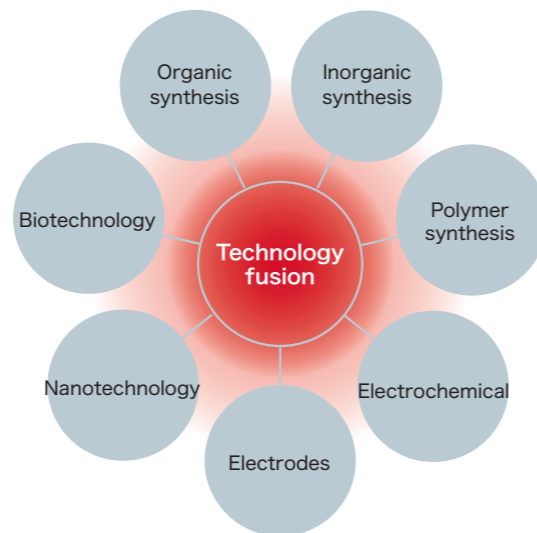
drive market growth and leverage our advantages. We have been able to build a business environment partially shielded from price competition as a result of the potential of unique products made with our proprietary technologies and our presence in the market.

Competitive advantage of innovative product development

< Developing niche fields using unique technology >

Through the development of seven core technologies (organic synthesis, inorganic synthesis, polymer synthesis, electrochemical, electrodes, nanotechnology, and biotechnology) based on the technology used at the time of our founding and their fusion over more than a century, we have grown by developing various new fields.

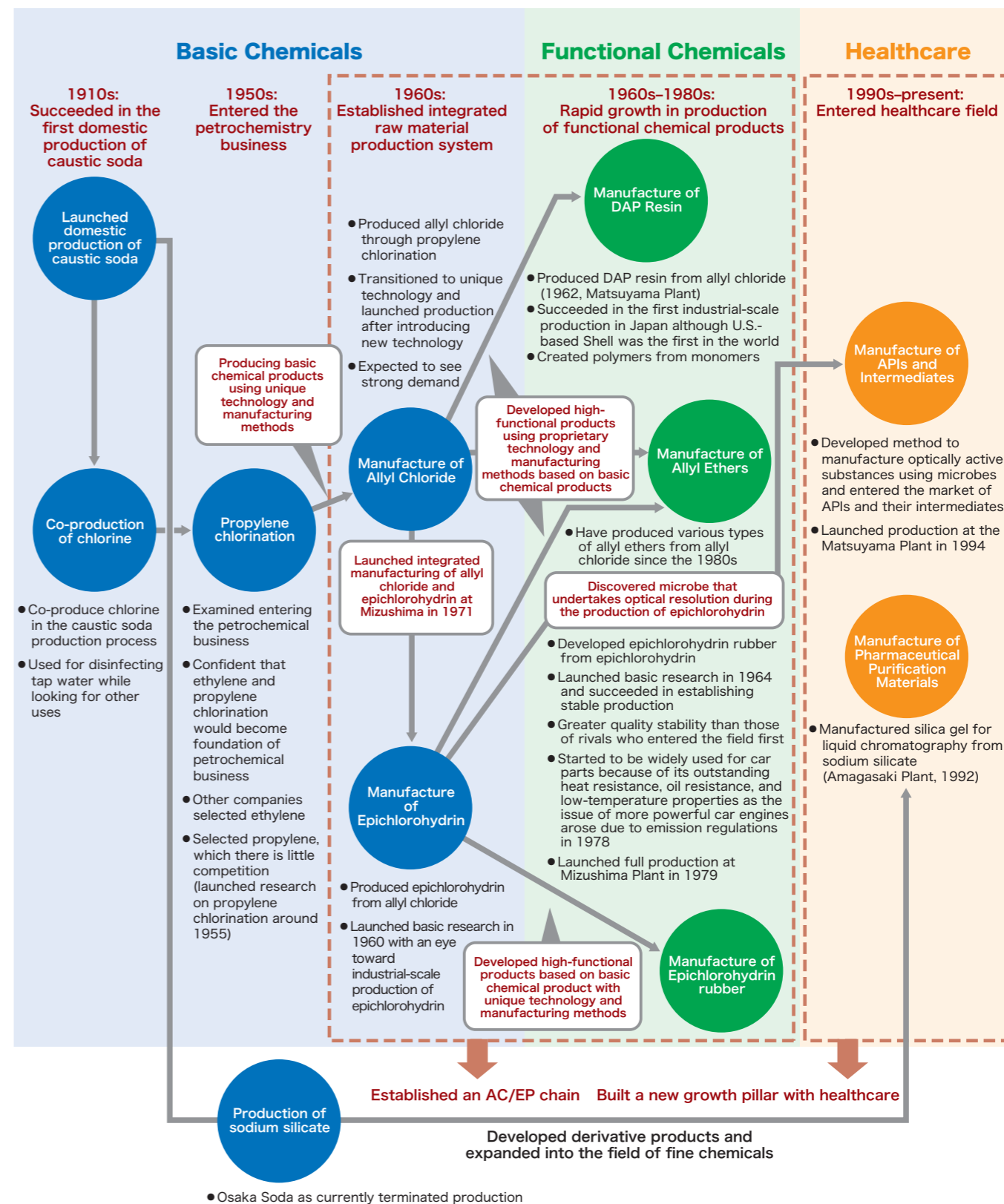
[Seven core technologies developed over the more than a century]



Each time it entered a niche market, Osaka Soda has established an exceeding efficient manufacturing method based on unique technology and developed and manufactured products with special functions and high value added. Through these efforts, not only have we driven market growth and captured a commanding market share, but also our core products have become staples for our customers for many years. Our lineup of global niche top products are distinctive for several reasons. First, they are difficult for other companies to imitate since they are manufactured using unique technologies, and during the process of capturing the top share, we have met the diverse needs of customers using our seven core technologies, steadily developed new uses, and strengthened our brand.

This is further increasing our share. It is precisely because of our development capabilities acquired through our unique

[Building a core business by expanding derivative products from electrolysis]



technologies that we have been able not only to develop a broad range of grades of our products but also to continually expand business without succumbing to changes in the market.

< Maximizing profits from the AC/EP chain through integrated manufacturing of products from basic chemicals through functional chemicals >

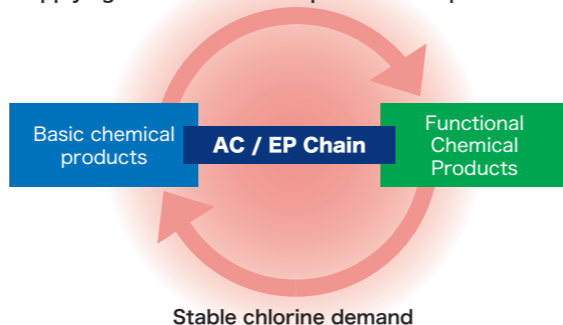
The source of the Group's competitiveness is the AC/EP chain based on integrated manufacturing that extends from basic chemical products to functional chemical products. Because of our integrated manufacturing, we have succeeded in maximizing profits by not only selling basic chemical products we manufacture to customers but also using them as the materials for our functional chemical products, adding value as derivative products, and then selling those products.

The first benefit is that we use our own materials. Of course, this offers a more stable and inexpensive supply of materials than if we purchased materials from other companies, but this also makes it possible to improve the quality of our derivatives through material quality control. For example, we can easily control the physical properties of epichlorohydrin rubber because we control the quality of epichlorohydrin, the raw material, and optimize epichlorohydrin rubber production. This leads to stable

production of derivatives, which will give us competitiveness and advantages.

[Maximizing profit through integrated manufacturing]

Supplying our own materials provides competitiveness



Another merit is that this makes it possible to choose a sales strategy that matches the business environment. It is generally necessary to reduce manufacturing facility utilization when the business environment deteriorates. For epichlorohydrin, because of in-house demand for the product, it is possible to choose either to sell the product to customers outside the company or use it as material for our

own product. Osaka Soda can maximize profits from the AC/EP chain due to integrated manufacturing because we reap the benefits for both basic chemical products and functional chemical products. For basic chemicals, there is stable demand for chlorine, and for functional chemicals, there is stable quality and supply and cost competitiveness because raw materials are manufactured in house.

< Possesses efficient manufacturing methods and production system >

In addition to technology and manufacturing methods, an efficient manufacturing system is an element of our strength. With five main manufacturing sites (Kitakyushu, Amagasaki, Matsuyama, Mizushima, and Okayama) in west Japan, particularly along the Inland Sea coast, we have a sales network directly linked to local customers, and each site is near an area with strong demand. Furthermore, all sites are compact plants, which makes it possible to effectively operate the business through the optimal use of personnel.

As for production technology, we are working not only to improve processes in order to increase intensity and yields but also develop manufacturing technologies that lessen the environmental burden.

< Leveraging our unique strengths in the healthcare field, too >

In the healthcare field, Osaka Soda's strengths are its development and manufacturing of pharmaceutical purification materials and APIs and their intermediates making use of three unique technologies - that is, organic synthesis, biotechnology, and chromatography. A distinguishing aspect of Osaka Soda is that it is difficult for other companies to imitate our products because both of these products are technically difficult to manufacture. For pharmaceutical purification materials, we offer a broad range of grades, more than 300, and an extensive lineup of peripheral products, including columns and analytical equipment, and provide meticulous technology and service. Having established good relations with pharmaceutical manufacturers throughout the world, we are able to aggressively expand the business even more on account of highly accurate forecasts. For APIs and their intermediates, too, we undertake production that leverages the special technologies we have acquired over the years producing low molecular weight pharmaceuticals and that is based on our experience with undertaking contract development and manufacturing of various types of these products. Growth of our business is supported by the high praise for our technology capabilities that we have won from those pharmaceutical companies.

[Global niche top products]

(share, based on Osaka Soda research)

<p>Diallyl Phthalate (DAP) Resin</p> <p>Main uses</p> <p>UV curable inks/ Electronic and electric devices</p> <p>Market share</p> <p>Osaka Soda 100%</p> <p>Osaka Soda is the only industrial manufacturer included in Global Niche Top Companies Selection 100 List by the Ministry of Economy, Trade and Industry</p>	<p>Epichlorohydrin rubber</p> <p>Main uses</p> <p>Automotive fuel hoses/ Intake and exhaust hoses/ Electric, transcription, and development rolls for OA</p> <p>Market share</p> <p>Osaka Soda 60%</p> <p>Undertaking integrated manufacturing of products from monomers to polymers using proprietary process and expanding into compound business</p>	<p>Allyl ethers</p> <p>Main uses</p> <p>Reinforcing carbon fibers/ Semiconductor sealants/ Printed circuit boards/ High-gloss wood coatings</p> <p>Market share</p> <p>Osaka Soda 75%</p> <p>Greatest sales in the world on account of diverse use, such as the raw material for silane coupling agent</p>	<p>Pharmaceutical purification material (silica gel for liquid chromatography)</p> <p>Main uses</p> <p>Precision analytical equipment/ Purification of pharmaceuticals</p> <p>Market share</p> <p>Osaka Soda 60%</p> <p>In addition to a wide range of grades (more than 300) produced under GMP* management, lineup of column and analytical equipment</p>
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* Abbreviation of good manufacturing practices, standards related to pharmaceutical manufacturing and quality controls

[Top share products in Japan]

(share, based on Osaka Soda research)

<p>Epichlorohydrin (EP)</p> <p>No. 1 in Japan</p> <p>Main uses</p> <p>Semi-conductors/ Laminated sheets/ Anticorrosion paint/ Carbon fiber binder</p>	<p>Modifying Agent for Low Fuel Consumption Tires "CABRUS™"</p> <p>No. 1 in Japan</p> <p>Main uses</p> <p>Low fuel consumption tires</p>	<p>Production of pharmaceuticals from extracted animal enzymes</p> <p>No. 1 in Japan</p> <p>Main uses</p> <p>Various APIs and their intermediates</p>
<p>Sodium chlorite</p> <p>No. 1 in Japan</p> <p>Main uses</p> <p>Bleaching agent for fibers/ Sterile detergents/ Softener</p>	<p>Electrodes for planting steel sheets</p> <p>No. 1 in Japan</p> <p>No. 2 in the world</p> <p>Main uses</p> <p>Industrial equipment as steel manufacturing plants, power plants, common salt electrolysis plants, circuit board plants, etc.</p>	<p>Sialic acid</p> <p>No. 1 in Japan</p> <p>Main uses</p> <p>Various types of pharmaceutical ingredients</p>

Fruits of the Previous Medium-term Management Plan “EMPOWER THE NEXT - 22” (FY2021-FY2022)

The previous medium-term management plan “EMPOWER THE NEXT- 22” (FY2021-FY2022) was a two-year plan to build up our strengths with an eye toward fiscal 2025, and we positioned those two years as a period to build a foundation for future businesses, and under four basic policies, we focused on constructing a foundation, which involved strengthening production capacity for main products and promoting business reforms. Fiscal 2022 performance was dramatically greater than initial forecasts, making it possible to achieve fiscal 2025 targets earlier than expected.

EMPOWER THE NEXT - 22 Review

(billions of yen)



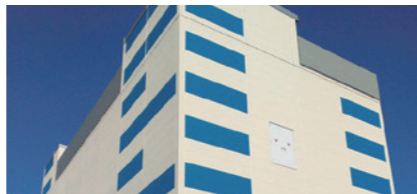
	Fiscal 2021 Actual	Fiscal 2022 Forecast	Fiscal 2022 Actual	Fiscal 2025 Target
Net Sales	88.0	80.0	104.2	100.0
Operating Income	12.4	10.0	15.5	12.5
ROE	11.7%	8.5% or more	11.5%	8.5% or more

In terms of “**building a resilient business foundation,**” we introduced a division-based organizational structure and promoted a resilience strategy.

For the basic chemicals business, in addition to investing in facility replacements to improve production efficiency and cutting costs, we built a stable supply system for electrolysis-derived products by launching operation at our new Kitakyushu Plant.

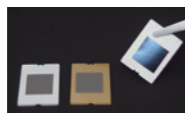
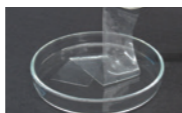

For the functional chemicals business, we increased production capacity about 20% to meet greater global demand for allyl ethers and promoted sales expansion.

For the healthcare business, we expanded production capacity for both pharmaceutical purification materials and APIs and their intermediates by making capital expenditures to meet strong demand.

Basic Chemicals	Functional Chemicals	Healthcare
Launched operation at the Kitakyushu Plant	Doubled allyl ethers production capacity	Completed construction of third APIs and their intermediates production facility (PI-3)
		

In terms of “**promotion of market-in-type development,**” we worked to accelerate progress with development themes and related changes and discontinuation by building a system to manage progress with development themes.

As a result, we succeeded in developing a semi-solid state battery using one of our unique polyether through joint research with Yamagata University. Furthermore, our development of ultra-high ionic conductive polymers for all solid batteries was selected as a New Energy and Industrial Technology Development Organization (NEDO) Green Innovation Fund Project for achieving a carbon neutral society.

Information and Communication	Environment and Energy	Health and Healthcare
Silver nanoparticles, which are expected to be a next-generation material	Unique polyethers for semi-solid state batteries, which will contribute to high performance lithium-ion batteries	Compass Kit that provides optimal purification solution for medium-molecule pharmaceuticals
		

In terms of “**efforts to achieve the SDGs,**” we formulated our Basic Policy on Sustainability, selected materiality, and set KPI.

Having established the Sustainability Committee in October 2022, we are moving forward with initiatives to achieve various goals, including implementing policies, particularly in the field of environment, human resources, and governance.

In terms of “**reforming corporate culture and organizational culture,**” we worked to restructure the personnel system through business reform activities and further increase productivity, which involved redesigning core systems and other activities in order to increase business efficiency.

New Medium-term Management Plan “Shape the Future - 2025” (FY2023-FY2025)

< Approach embodied in the new medium-term management plan >

Through the new medium-term management plan “Shape the Future -2025” (FY2023-FY2025), we will work to enhance corporate value by clarifying issues and further increasing the resiliency of our business foundation as we work to realize “our vision” for 2025, a milestone, with an eye toward “our ideal image” for 2035, the 120th anniversary of our founding. We will also reinforce sustainability management in order to meet the demands of society and the market. Our goal is to post record performance in the final year of the plan by moving forward with key measures to achieve sustainable growth based on a business foundation strengthened through the previous medium-term business plan.

< New medium-term management plan basic policies >

1) Continuous strengthening of our base in existing businesses

We will expand our business base by generating stable cash from existing businesses and actively investing in growth areas. For basic chemicals, we will actively strengthen facility management, invest in maintenance and renewal, and maintain and expand our sales share. For functional chemicals, in addition to cultivating the market for global niche-top products, such as synthetic resin and synthetic rubber, and developing new applications, we will work to expand our business scale by growing sales of acrylic rubber and non-phthalate allyl resin. For healthcare, we will expand production capacity for pharmaceutical purification materials in order to capture greater future demand for diabetes and obesity medications. As for APIs and their intermediates, we will move forward with initiatives to quickly launch full operation at new facilities completed in March 2023, carefully examine capital expenditures to fully enter the market for high potency pharmaceuticals, and thus establish a third highly-profitable business.

2) Strengthening of new product creation capabilities

We will strengthen company-wide efforts to further promote market-in-type development and nurture the products that will become the pillars of the next generation. Furthermore, to speed up development, we will strengthen progress management of development themes, develop and flexibly allocate human resources, maintain development infrastructure, and promote external resource utilization such as alliances and investments. Priority fields of development are “environment and energy,” “mobility,” “information and communication,” and “health and healthcare,” and in these fields, we will quickly launch sales of the next global niche top products.

3) Promotion of sustainability management

Based on the basic policy of “aiming to combine contributing to the realization of a sustainable society through our business activities with enhancing our corporate value,” the Sustainability Committee takes the lead in promoting various measures, including reducing and expanding disclosure of greenhouse gas emissions, promoting measures to reduce our environmental impact, promoting women’s active engagement, investing in human capital (human resource education, etc.) , and responding to the revised Corporate Governance Code. Furthermore, we will work to further enhance corporate value by deepening dialogue with all stakeholders, including investors, by expanding disclosure through such material as the integrated report.

< Performance targets >

(billions of yen)

	Fiscal 2022 Actual	Fiscal 2025 Target
Net Sales	104.2	123.0
Operating Income	15.5	18.0
ROE	11.5%	10.0% or more

< Investment plans >

(billions of yen)

Investment field	Fiscal 2021- Fiscal 2022 (cumulative results)	Fiscal 2023- Fiscal 2025 (cumulative forecast)
Strategic investments*1	8.1	15.5
Investments for maintenance and production efficiency*2	4.0	9.5
Total	12.1	25.0

* 1. Investments to increase capacity, undertake large-scale replacements, conduct R&D, reinforce information infrastructure, etc.

* 2. Renewal of aging facilities, investments in preventive maintenance, and strengthening facility management

(In addition to the above, we will allocate up to 20.0 billion yen for investments and financing for such activities as M&As and alliances, etc.)

< Shareholder return policy >

Our Group considers the distribution of profits to shareholders to be an important responsibility. Dividends are determined by comprehensively taking into account factors such as the results of each fiscal year, the continuity of stable dividends, and internal reserves for future business development. In the new medium term management plan “Shape the Future - 2025,” we aim to achieve a total shareholder return ratio of 40% by continuing stable dividends and utilizing stock buybacks.

Basic Chemicals

Business description
Consists of the soda electrolysis business (since the founding of the Group) and epichlorohydrin business

Distinguishing characteristics

- The chlor-alkali business specializes in providing a supply closely tied to local customers by leveraging our strong logistics system and four electrolysis plants in West Japan
- The epichlorohydrin business boasts the top production capacity in Japan and has a strong presence for epoxy resin raw materials, mainly in Japan and Asia

Core products

- Chlor-alkali products (caustic soda, chlorine gas, sodium hypochlorite, hydrochloric acid, etc.), allyl chloride, and epichlorohydrin

Fiscal 2022 summary: Increase in sales and income

- For chlor-alkali products, price revisions were accepted in response to the increase in fuel and raw material prices
- For epichlorohydrin, there was strong demand related to electronic materials in the first half, and price revisions also made contributions

New medium-term management plan basic policy

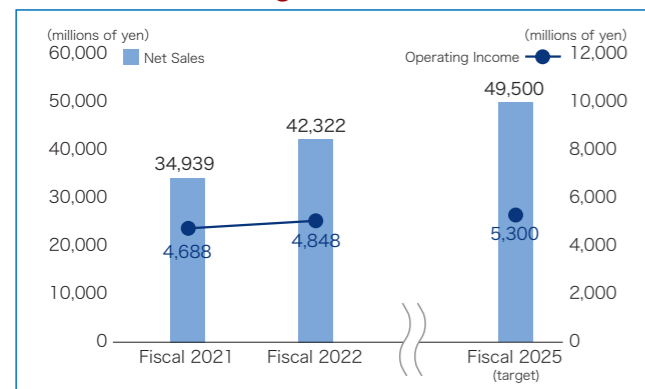
Maintain full production with current capacity and work to maintain and expand sales share

- Promote sales closely tied to local customers
- Implement sales strategy appropriate for changes in fuel and raw materials prices and continue to cut costs
- Continue to raise productivity and renew aging facilities in order to build a robust business foundation

< Key measures >

- Improve ability to coordinate and balance production between four electrolysis plants
- Increase production efficiency and renew aging facilities
- Increase efficiency of logistics operations and reinforce related systems
- Improve core technologies and develop new businesses

Performance and Targets



Note: Figures for fiscal 2021 and fiscal 2022 are calculated using new segments.

Functional Chemicals

Business description
Centered on the derivatives business, which uses allyl chloride and epichlorohydrin produced by the basic chemicals business as raw materials, and includes the three core businesses of synthetic rubber, synthetic resin, and allyl ethers

Distinguishing characteristics
The business leverages the distinguishing characteristics of products differentiated by their physical properties to capture the top market share both in Japan and overseas for numerous products used in various fields, including car parts, electronic parts, ink, and coatings

Core products
Epichlorohydrin rubber, DAP resin, allyl ethers, modifying agent for low fuel consumption tires, electrodes, etc.

Fiscal 2022 summary: Increase in sales and income

- For epichlorohydrin rubber, there was an increase in demand for use in cars due to environmental regulations
- For acrylic rubber, it was adopted for various new purposes both in Japan and overseas, and sales grew in Asia
- For synthetic resins, sales for use in insulating varnish rose in China, particularly in the first half
- For allyl ethers, sales of silane coupling agents for functional paints and electronic material applications were firm in Europe, the U.S., and China

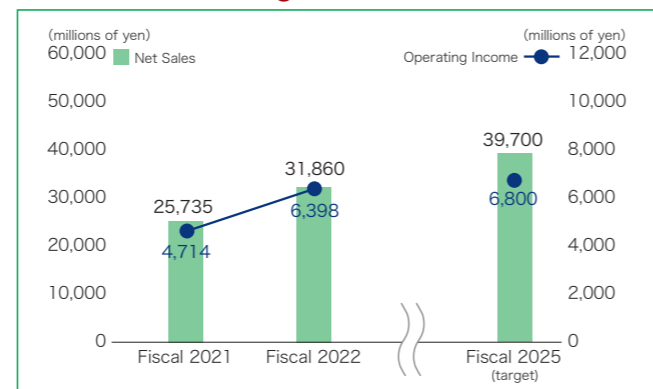
New medium-term management plan basic policy

Expand scale of business for existing GNT products, acrylic rubber, and non-phthalate allyl resin

< Key measures >

- Increase capacity of allyl ethers manufacturing facilities
- Expand sales of acrylic rubber and non-phthalate allyl resin
- Improve profitability of compound business in the North America
- Strengthen development and sales capabilities

Performance and Targets



Note: Figures for fiscal 2021 and fiscal 2022 are calculated using new segments.

Healthcare

Business description
Consists of the pharmaceutical purification material business, which includes pharmaceutical purification materials (silica gel) and analytical equipment (packed columns, etc.), and the APIs and their intermediates business, which is operated by SANYO FINE CO., LTD., a Group company

Distinguishing characteristics

- The pharmaceutical purification materials business boasts the global top share of pharmaceutical purification materials that use silica gel, which are primarily used for purification of diabetes and obesity medications. The business employs an integrated manufacturing system for various products, including those used in peripheral fields, such as columns and equipment used for analysis and purification
- The APIs and their intermediates business entails the contract development and manufacturing of distinctive APIs and their intermediates made using both organic synthesis technology and biotechnology

Fiscal 2022 summary: Increase in sales and income

- For pharmaceutical purification materials, demand for diabetes medications in Europe, the Americas, and Asia rose
- For APIs and their intermediates, there was an increase in contract manufacturing of medications for complications from diabetes, insomnia medications, and dementia medications

New medium-term management plan basic policy

Expand through synergies between both businesses based on total solution provider strategy

Pharmaceutical purification materials

- Steadily capture growing demand for silica gel
- Expand production capacity to meet greater future demand
- Develop and commercialize polymer gel

APIs and their intermediates

- Quickly launch full operation of the new PI-3 facilities

< Key measures >

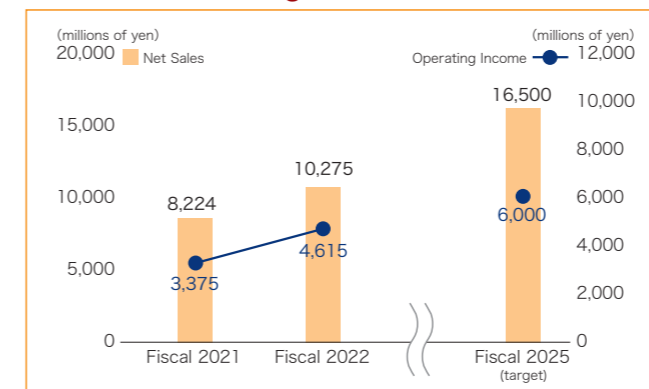
Pharmaceutical purification materials

- Undertake first phase expansion of silica gel facilities and launch full production (Amagasaki Plant)
- Construct new silica gel production building (Matsuyama Plant)
- Undertake second phase expansion of silica gel facilities (Amagasaki Plant)
- Develop and introduce polymer gel

APIs and their intermediates

- Launch full operation of PI-3 facilities (SANYO FINE Matsuyama Plant)
- Further expand facility capabilities (SANYO FINE)
- Reinforce high potency pharmaceutical field
- Enter the biopharmaceutical field

Performance and Targets



Note: Figures for fiscal 2021 and fiscal 2022 are calculated using new segments.

Trading and others

Business description
Consists primarily of material recycling and products handled by DAISO CHEMICAL CO., LTD., a chemical trading company

Distinguishing characteristics

- The business handles not only such products as basic chemicals (inorganic chemicals, solvents, etc.), and functional chemicals (paint materials, photosensitive resins, etc.), but also a broad range of cutting-edge chemical materials, including fine filtration membranes and glass fibers
- The business contributes to a healthy long-life society by providing the Group's outstanding technologies to consumers through health food products and cosmetics
- The business also contributes to a recycling-oriented society through the material recycling business that applies metal absorption technology

Core products
Inorganic chemicals, solvents, painting materials, coatings, photosensitive resins, glass fibers, health food products, cosmetics, consumer products, building materials, etc.

Fiscal 2022 summary: Increase in sales and income

- For basic chemical products, price revisions were accepted due to higher raw material and resource prices
- For consumer products, there was increase in orders for summer goods and large consumer products

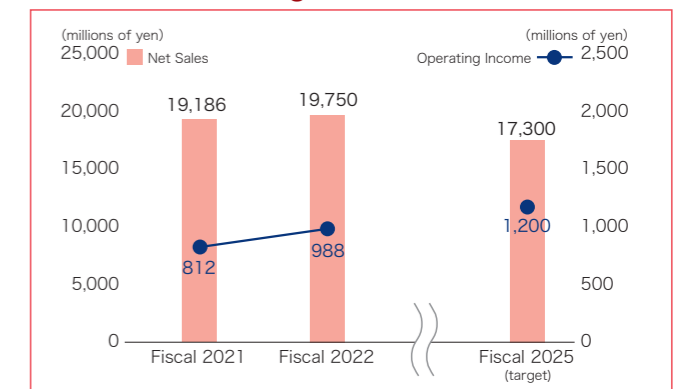
New medium-term management plan basic policy

Work to strengthen information gathering capabilities to fully demonstrate that function of the Osaka Soda Group and to expand the business in both Japan and overseas

< Key measures >

- Launch commissioned production of semi-solid state battery
- Expand consumer products business
- Conduct sales of newly developed photosensitive materials
- Improve earnings from solvent business
- Reinforce profitability and information gathering capabilities of overseas subsidiaries

Performance and Targets



Note: Figures for fiscal 2021 and fiscal 2022 are calculated using new segments.

R&D Policy

The Group has created numerous global niche top products through innovative product development.

In the new medium-term management plan "Shape the Future – 2025", we aim to establish, in the final year of the plan, a "development system for continuous launch of new products" in order to achieve "our ideal image" for 2035 under the basic policy of "strengthening of new product creation capabilities." To quickly develop products that will become the pillars of the next-generation, we are implementing concrete measures.

① Organization structure and human resource management

- Strategically reallocate resources making use of skill map
- Implement development plans appropriate for each job grade
- Invigorate the R&D system through disclosure to outside parties and exchanges

② Progress with managing themes

- Increase the productivity of development operations through theme management based on design reviews (DR)
- Accelerate new product development by spreading the use of knowledge management

③ Theme search methods

- Actively promote the uncovering of themes by leveraging our strength
- Invigorate young researchers by introducing a "challenge system"

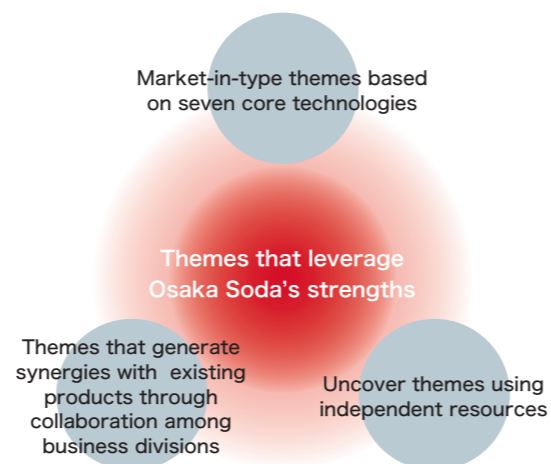
④ Creation of development infrastructure to increase productivity

- Improve the productivity of development operations by making use of R&D support tools
- Utilize materials informatics (MI)

⑤ Intellectual property strategy

- Communicate information on intellectual property that contributes to business (Utilize IP landscape, etc.)
- Construct a competitive patent portfolio

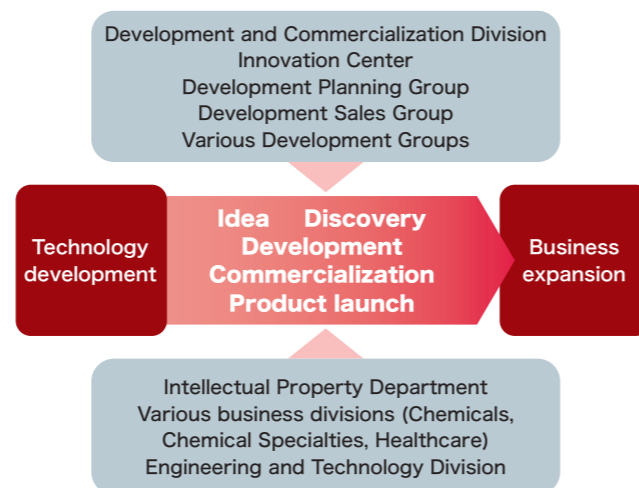
[Approach to development themes]



R&D System

The Development and Commercialization Division possesses an entrepreneur mindset and aims to further improve fundamental technologies at the core of Osaka Soda. The Development Planning Group, which uses our Company's proprietary technologies to explore and plan development themes, and Development Sales Group, which collaborates with each business division to acquire new customers and verify business models, work together to unitarily promote the development and commercialization of new products that meet market needs. Under the control of the command center, the Development Planning Group, each development group is engaged in the development of new materials, new grades around existing businesses, and new applications.

Osaka Soda accelerates commercialization through close collaboration with organizations with different roles, and also creates unique value that will enrich society in the future.

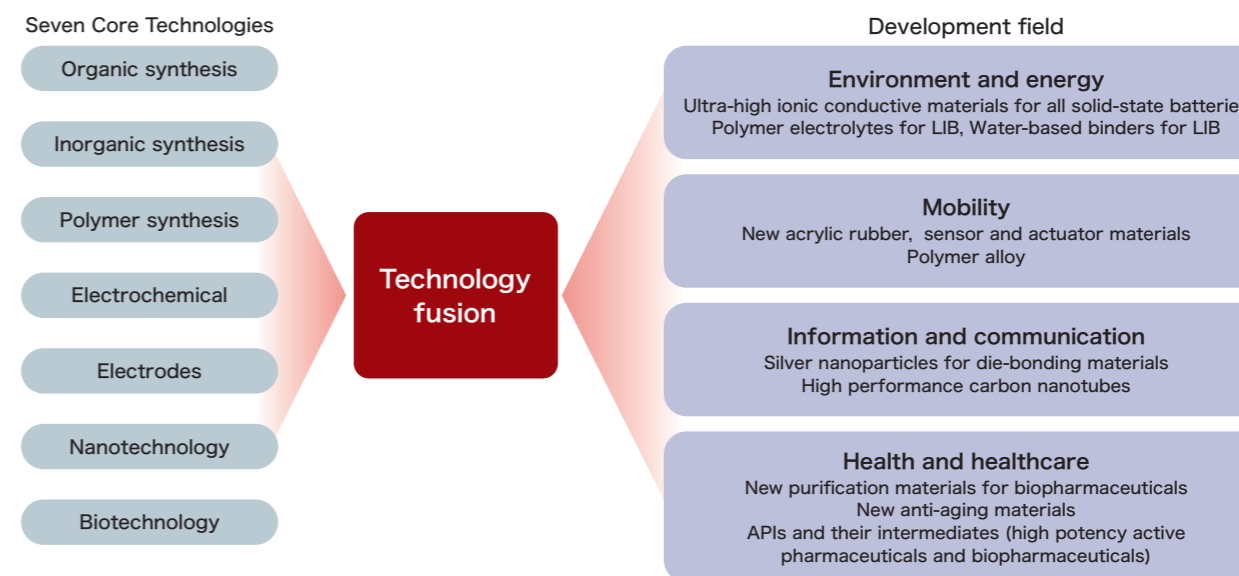


Development Field

We are moving forward with the development of one-of-a-kind new technologies and products in order to create new value desired by customers by melding our seven core technologies.

We have designated the four fields of environment and energy, mobility, information and communication, and health and healthcare as development fields, and aim to create new global niche top products.

[Seven Core Technologies and Priority Development Fields]



① Environment and energy

We are developing materials that contribute to a lighter environmental burden and greater energy efficiency, including ultra-high ionic conductive polymers for all solid batteries, which was selected as a NEDO Green Innovation Fund Project for achieving a carbon neutral society.

② Mobility

Using the knowledge acquired through development to meet the needs of customers, such as new grades of acrylic rubber, we are moving forward with the development of functional materials that support the spread of electric mobility in response to the new normal for cars brought about by CASE, MaaS, and Society 5.0.

③ Information and communication

We are working to develop the products necessary for advanced communication networks that will form the foundation of a smart society, which includes developing silver nanoparticles for die-bonding materials as a highly reliable bonding material that also possesses high thermal resistance and dissipation properties, which is required for next-generation power semiconductors.

④ Health and healthcare

In addition to working to develop biopharmaceutical purification materials in response to diversification of treatment methods in the medical device field, we are promoting the development of products useful for extending lives and improving QOL, such as anti-aging materials.

TOPIC

Construction of Battery Research Building

We launched construction of new battery research building on the grounds of the Research Center (expected to complete construction in February 2024). We will promote rapid development that meets the needs of the times through facilities that can handle all processes from research and development of ultra-high ionic conductive polymers to battery evaluations.



Envisioned Battery Research Building when completed

TOPIC

Silver nanoparticles for die-bonding materials wins Award in Environmental Technology

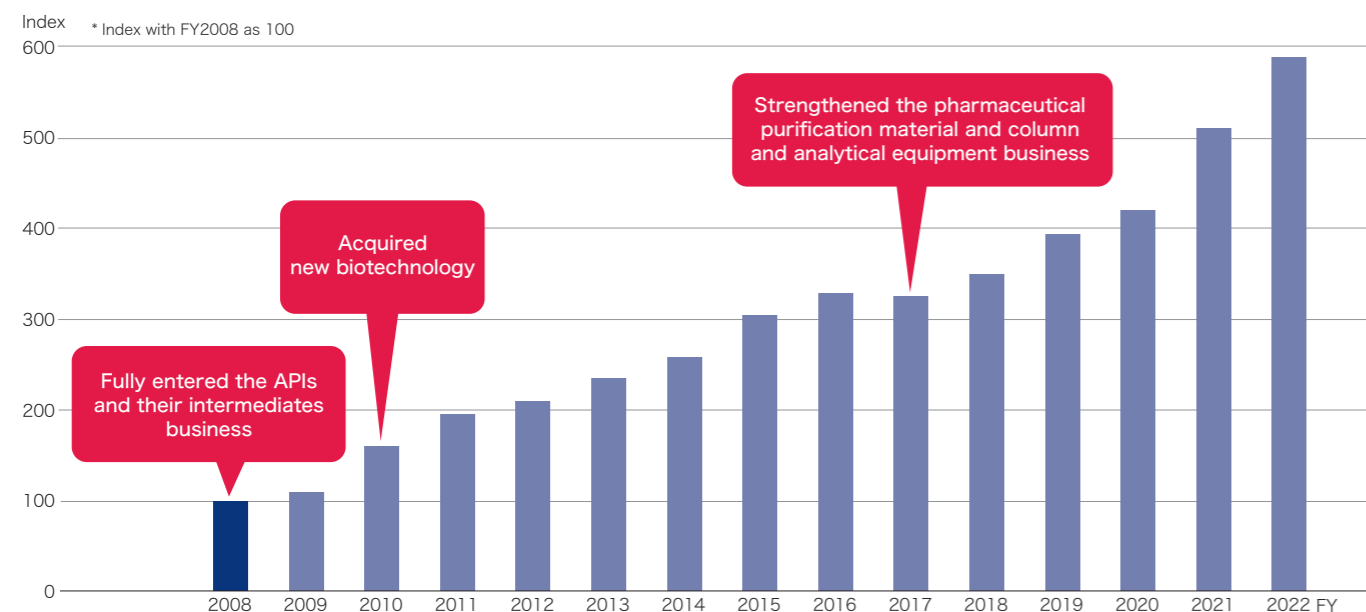
Our silver nanoparticles for die-bonding materials won the 75th KCS Award in Chemical and Environmental Technology presented by the Kinka Chemical Society, Japan in May 2023. Our proprietary particle control technology makes it possible to separately create particles from the nano to sub-micron size while maintaining high sintering properties, which makes it possible to create a binding agent with more than three times the thermal conductivity of solder by adding the particles to a sintered silver bonding agent. The uniqueness of our technologies and environment-friendly products have won high praise.



History of the Business

We have continued to expand the healthcare business through not only organic growth but also other activities, including M&As. Having captured a commanding share of the global market for pharmaceutical purification materials, 60%, we are continuing to grow the business as a new pillar of earnings after basic chemicals and functional chemicals.

【 Healthcare business net sales 】



< Pharmaceutical purification materials >

As for the introduction of sodium silicate derivatives, we launched research focused on silica gel for liquid chromatography, which had begun to draw attention as a new separation method. After establishing the technology, we launched manufacturing operations at our Amagasaki Plant in 1992. Since then, we have strengthened the facility's capacity in response to demand for purification materials for diabetes medications, a major use of the product, and have focused on creating a GMP system. In 2017, we reinforced our column and analytical equipment business by acquiring all the shares of Shiseido Irica Technology Co. Ltd. (present-day SANYO FINE IRICA TECHNOLOGY CO., LTD.).

< APIs and their intermediates >

After discovering a microbe that undertakes optical resolution during the production of epichlorohydrin and succeeding in the development of chiral epichlorohydrin that makes use of that, we entered the APIs and their intermediates business in 1994. In 1999, we constructed pharmaceutical intermediates manufacturing facilities (PI-1) and have strengthened its capacity since then. Furthermore, we fully launched our contract development and manufacturing business when we acquired all shares of SANYO FINE CO., LTD. in 2008 and expanded our business from intermediates to active pharmaceutical ingredients. Then in 2010, we acquired new biotechnology through the merger of the SANYO FINE CO., LTD. with the Food & Bio Research Center, Inc.



Silica Gel Manufacturing Facilities at Osaka Soda Amagasaki Plant



Sanyo Fine Matsuyama Plant



Sanyo Fine Fukui Plant



Sanyo Fine Kakogawa Site

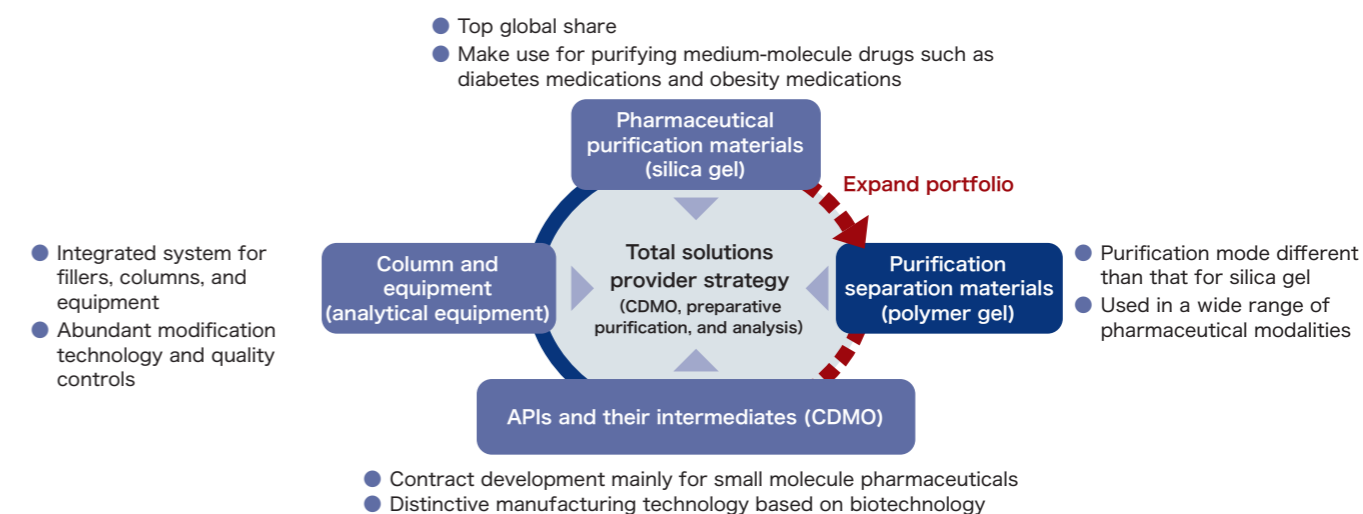
Vision and Business Strategy

< Vision >

In addition to increasing manufacturing capacity and strengthening sales capabilities, we are aiming to expand our portfolio and to record earnings that are double their current ones in fiscal 2030. We will work to continually enhance corporate value by actively investing in the highly profitable healthcare business, which is resistant to the business environment, and growing the business into a major pillar of the Group's business.

< Business Strategy >

By implementing a strategy that leverages our strength with pharmaceutical purification materials and APIs and their intermediates, we provide total solutions that extend from pharmaceutical analysis and preparative purification to contract development and manufacturing.



① Expand sales of pharmaceutical purification materials (silica gel)

The outlook for the business environment for major consumers of pharmaceutical purification materials is good. According to the International Diabetes Foundation, the worldwide number of people with diabetes is projected to grow from 540 million in 2021 to 780 million by 2045. Furthermore, the number of obese people throughout the world reached about 640 million people in 2016, and is projected to continue to grow. We reinforced the manufacturing capacity of our Amagasaki Plant in March 2023 in order to meet this strong demand. Because of expected future increase in demand, we plan to more than double current manufacturing capacity in fiscal 2026 or after by building new manufacturing buildings at the Matsuyama and Amagasaki Plants.

② Enter the polymer gel market

The polymer gel market is forecast to be more than ten times that of the silica gel market, and it is expected to grow to include peptide pharmaceuticals, mRNA, nucleic acid pharmaceuticals, and antibody pharmaceuticals. In March 2023, we reached a basic agreement with Mitsubishi Chemical Corporation, a long-established polymer manufacturer, regarding joint development and marketing. Because this will make it possible to propose a wide range of solutions, we will further expand business in the field of pharmaceutical purification.

③ Expand sales of column and equipment

Demand for columns and equipment is steadily growing for various reasons, including an increase in opportunities for inspection and analysis as a result of stricter quality management and environmental regulations, more diverse treatment methods in the pharmaceutical industry, and growth in the biopharmaceutical market. We will expand column manufacturing capacity, strengthen our lineup of new column products, and improve analytical equipment in order to respond to changes in the business environment.

④ Expand sales of APIs and their intermediates (CDMO)

As for APIs and their intermediates, movement to bring back the procurement of ingredients to Japan is accelerating due to supply instability of manufacturers in emerging countries as a result of quality issues and stricter environmental regulations. In addition to quickly establishing a third full manufacturing system for APIs and their intermediates (PI-3) at the Matsuyama Plant, which was completed in March 2023, we are looking to reinforce facilities in the field of high potency pharmaceuticals and actively expand into the biopharmaceutical business with an eye on future demand growth.

Basic Policy on Sustainability

Osaka Soda set its Basic Policy on Sustainability as “we aim to combine contributing to the realization of a sustainable society through our business activities with enhancing our corporate value” based on the Group Mission Statement of “contributing to the realization of a safe and affluent society through our creative technologies and innovative products.”

Initiatives to Ensure Sustainability

< Governance >

The Sustainability Committee, which is directly under the Board of Directors, receives reports on sustainability and supervises related initiatives.

[Sustainability Committee]

Composition	Committee chair: President & CEO Members: Directors, executive officers, etc.
Activities	Formulate sustainability policies, strategies, and measures for various departments, monitor the state of achieving KPI related to four materiality and manage progress, and regularly submit reports and make recommendations to the Board of Directors

< Strategy >

As for “providing social value through business” and “strengthening business foundations,” two of the Group’s materiality, Osaka Soda formulated concrete measures related to such issues as undertaking stable production, improving product quality, and reinforcing technology development capabilities, and promotes related initiatives. In light of the Basic Policy on Sustainability, we not only contribute to the realization of a secure, affluent society by manufacturing and supplying a lineup of products that support industrial infrastructure but also continue to enhance corporate value by building a firm business foundation and expanding business.

As one initiative to address climate change issues, which is included in “strengthening CSR activities,” Osaka Soda identified risks related to transitioning to a carbon-free society (transition risk) and risks related to the physical impact of global warming (physical risk) using a 1.5°C–2°C scenario and 4°C scenario.

[Scenario Analysis]

1.5°C–2°C: Transition risks are relatively high	4°C: Physical risks are relatively high
Risks with a major impact: Increase in costs to comply with regulations and increase in offset credit prices Measures: Introduce highly efficient equipment and streamline production process	Opportunities with a major impact: Strengthen support for developing and introducing environment friendly technologies Measures: Develop materials that reduce environmental burden and increase energy efficiency

Turning to developing human resources, Osaka Soda aims to contribute to the growth of society and the Group by incorporating the values of diverse people and creating a work environment in which each and every employee feels job satisfaction.

- Human resource development policy to ensure diversity: Introduce and conduct career training and early career rotations so that employees can work for many years with peace of mind.
- Revisions to the personnel system and education and training system: Make it possible so that all employees can make the greatest use of the abilities.

- Developing the company’s internal environment: Create and operate systems, such as flextime system, work interval system, telecommuting system, and a system to encourage male employees to use childcare leave; foster a workplace culture of understanding for diverse workstyles; and work to develop a workplace environment in which the appropriate person is assigned to the appropriate position in line with the business strategy regardless of nationality, gender, whether new graduate or mid-career hire, or other attribute, diverse human resources respect each other, and all employees play an active role.

< Risk Management >

Production-related risks are handled by the RC Committee, Quality Assurance Committee, and Engineering and Technology Division, and information management-related risks are handled by the Information Management Committee. Each related division and body identifies and evaluates risks, and reports them to the Board of Directors after deliberating on a response measures, and the Board of Directors actively deliberates the issue. As for climate change-related risks, serious risks are identified by evaluating when they might materialize and the seriousness of the impact on business based on scenario analysis. For identified serious risks, the Sustainability Committee deliberates on the issue, proposes a response policy, strategy, and measures, and reports on this to the Board of Directors.

< Metrics and Targets >

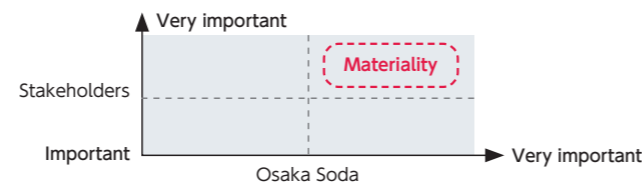
Regarding “providing social value through business” and “strengthening business foundations,” Osaka Soda sets targets related to such issues as improving intensity and curbing non-conforming products in order to enhance corporate value by creating a firm business foundation and expanding business. As for “strengthening CSR activities” and “developing human resources,” we have set target figures for such issues as reduction in CO₂ emissions and ratio of female managers.

Materiality

Osaka Soda identifies materiality (key issues), sets important elements for the four materiality, and then implements concrete measures to implement the Group Mission Statement and Basic Policy on Sustainability.

[Materiality Identification Process]

- STEP1** Identify the business activities with which the Group contributes and the challenges faced in order to continue sustainable growth
- STEP2** Identify issues from ISO 26000 and the GRI standards (issues with societal demands) that do not overlap with STEP1
- STEP3** Identify issues from the perspectives of both stakeholders and the Group
- STEP4** Distill issues for the Group into materiality
- STEP5** Identify materiality for the SDGs at the Management Committee



[Materiality and Key Elements]

Materiality	Providing social value through business		Strengthening business foundations	Developing human resources	Strengthening CSR activities			
Key Elements	Making social contributions through business activities	Providing new value demanded by society	Continuously strengthening business foundations	Creating an employee-friendly workplace and developing human resources	Occupational safety and health/ Disaster prevention	Chemicals management/ Safety and quality	Addressing climate change issues	Environmental preservation

Materiality and Measures (KPIs)

Strengthening Business Foundations: Continuously strengthening business foundations

Initiative	Measure (KPI)
Strengthening efforts for stable production	● Reviewing work standards ● Reflecting on past issues and confirming countermeasure continuity/effectiveness ● Operator training using skill maps
Improving product quality	● Conducting regular training to raise awareness levels for quality assurance ● Rigorously enforcing change management ● Surveying suppliers on their CSR, quality management, and other initiatives
Reinforcing technological development capabilities and passing on fundamental technologies	● Conducting regular technical meetings ● Taking cost reduction measures ● Curbing non-conforming products
Strengthening production facility management system	● Strengthening autonomous maintenance management system ● Reinforcing scheduled maintenance management system ● Introducing, operating, entrenching a facilities management system
Promoting DX	● Promoting visualization and standardization ● Standardizing operations, updating ERP, updating infrastructure and networks ● Improving productivity/R&D speed ● Increasing operational efficiency through automation/AI

Developing Human Resources: Creating an employee-friendly workplace and developing human resources

Initiative	Measure (KPI)
Reforming corporate culture and organizational culture	● Instilling the management philosophy system ● Promoting and executing business reforms
Expanding educational opportunities	● Clarifying skills by grade ● Reviewing education and training programs
Promoting women's active engagement	● Reviewing recruitment activities (ratio of female new graduates hired: 20% or more) ● Reviewing personnel and education systems (Increasing the ratio of female manager, including section chiefs by 1.5x by fiscal 2025 [vs. fiscal 2021])
Promoting work-life balance	● Encouraging use of annual paid leave (target: 70% or more) ● Encouraging male employees to use the childcare leave system

Strengthening CSR Activities: Occupational safety and health / Disaster prevention

Initiative	Measure (KPI)
Eliminating lost worktime injuries by promoting health and safety activities	● Organizing, understanding, and upholding work procedures ● Promoting 5S activities ● Utilizing information from past issues and incidents ● Instilling the Safety Guidelines (zero lost worktime accidents) ● Implanting safety skill acquisition systems
Promoting mental health care and activities for better physical health	● Interviews at high-stress workplaces and activities to improve the workplace environment ● Mental health training (absences from work due to mental health issues: less than 0.6%) ● Recommending re-examination for those who require detailed testing or re-testing ● Promoting specific health guidance (checkup findings, re-testing/detailed testing rate: 70% or more)(checkup findings: less than 30%)
Curbing serious accidents	● Mitigating risks through hazard source identification activities, including KY*, RA, SA, HAZOP ● Improving security management level ● Promoting facility management (zero serious accidents)
Preparing for major natural disasters	● Upkeep of disaster prevention equipment, goods, and materials ● Conducting disaster drills in anticipation of large-scale earthquakes, etc. ● Reviewing BCP ● Planned renewals of aging facilities

KY* : Hazard prediction activities

Chemicals management / Safety and quality

Initiative	Measure (KPI)
Complying with domestic and international chemical regulations	● Appropriately complying with Japanese chemical laws and regulations such as the Chemical Substances Evaluation Law, the Chemical Substances Management Law, and the Fluorocarbons Recovery and Destruction Law ● Appropriately complying with EU-REACH and other chemical laws and regulations outside Japan ● Disseminating information on revisions to chemical laws and regulations ● Conducting compliance training
Providing product safety information	● Preparing and providing product Safety Data Sheets (SDSs) on our corporate website ● Providing information on chemical substance content through JAMP chemSHERPA ● Supporting customer research requests

Addressing climate change issues

Initiative	Measure (KPI)
Reducing greenhouse gas emissions	● Introducing high-efficiency equipment ● Promoting energy conservation activities ● Streamlining production processes ● Promoting the use of green energy (reduce CO ₂ emissions: by 30% in fiscal 2030 [vs. fiscal 2013])

Environmental preservation

Initiative	Measure (KPI)
Reducing industrial waste landfill rate	● Increasing recycling rate of ash dust ● Reducing volume and recycling brine mud ● Promote in-house reuse (final landfill rate: less than 1% in fiscal 2030)

Basic Approach

Based on our Group Mission Statement, the Group has a basic policy which aims to ensure the transparency and fairness of management and further enhance the corporate governance system, thereby realizing sustainable corporate growth and medium- to long-term enhancement of corporate value.

System

< Board of Directors >

The Board of Directors is composed of six directors, three of whom are outside directors. As a rule, it meets once a month to deliberate on important matters as well as discuss the progress of business performance and actions to be taken in accordance with the rules of procedure for the Board of Directors. In addition, Osaka Soda has made the term of office for directors one year and introduced an executive officer system that allocates the management decision-making and executive oversight functions to the Board of Directors and the implementation of operations to the executive officers. Our aim with this system is efficient corporate management and clarification of responsibility.

< Management Committee >

Composed mainly of directors, the Management Committee is an advisory body for the Representative Director. The Committee deliberates important issues in the performance of the duties of the directors, forming a structure under which decision making by the Representative Director is understood and implemented accurately.

< Board of Auditors >

There are three auditors, two of whom are outside auditors. The auditors attend meetings of the Board of Directors in addition to actively participating in important internal company meetings, enabling them to supervise the execution of duties by the directors adequately.

< Nomination and Compensation Committee >

The Nomination and Compensation Committee is a voluntary advisory body to the Board of Directors, and a majority of its members are independent outside directors. The committee was established to further reinforce corporate governance by strengthening not only the independence and objectivity of Board of Directors functions related to nomination and compensation of directors, executive officers, and similar parties, but also accountability and fostering next-generation management resources.

< Sustainability Committee >

The Sustainability Committee (established as a body directly under the Board of Directors in October 2022) formulates sustainability policies, strategies, and measures, and monitors the state of achieving the four materiality and manages progress of related efforts. The committee met two times in fiscal 2022. The committee, which is chaired by the President and CEO, and the General Manager of the Administration Division serves as the vice chair of, is composed of representatives of the production divisions, business divisions, corporate divisions, and Group companies. Auditors participate as observers.

< Outside Directors and Outside Auditors >

Osaka Soda has appointed three outside directors and two outside auditors with the aim that they will perform the role of advising and supervising Osaka Soda's management from an external perspective with an independent standpoint.

There are three outside directors. Bun'yu Futamura was appointed to reflect his wealth of experience as a manager and extensive insight into the business world in Osaka Soda's management. Hakaru Hyakushima is an expert in taxation and was appointed as an outside director to reflect his profound insights and abundant experience. Okiko Miyata is an expert in pharmaceuticals and was appointed as an outside director to reflect her profound insight and abundant experience in Osaka Soda's management. All three have been designated as independent officers.

There are two outside auditors. Shigetsugu Fujiyabu was appointed to reflect his wealth of experience in financial institutions and expert insight into finance and other areas in Osaka Soda's audits. Furthermore, Shinji Mori was appointed to reflect his corporate legal work in the legal profession and knowledge of finance and accounting in the Company's audits. Both have been designated as independent officers.

< Internal Audit System >

The Internal Auditing Department (two members) is responsible for internal audits and implements audits that cover all operations.

< Accounting Auditors >

Osaka Soda has an auditing agreement with Ernst & Young ShinNihon LLC. Ernst & Young ShinNihon spends ample time on audits and Osaka Soda has an internal system that facilitates audits.

< Nomination of Directors and Auditors and Determination of Compensation >

The Board of Directors, including the independent outside directors, nominate candidates for directors and auditors who are elected by the General Meeting of Shareholders.

The amounts of compensation for individual directors are determined in accordance with internal rules by the Representative Director, who is entrusted to do so by the Board of Directors. These amounts are within the limit decided at the General Shareholders Meeting and subject to the report of the Nomination and Compensation Committee, and reported to the Board of Directors. The amounts of compensation for auditors are determined through consultation between the auditors within the limit decided at the General Shareholders Meeting.

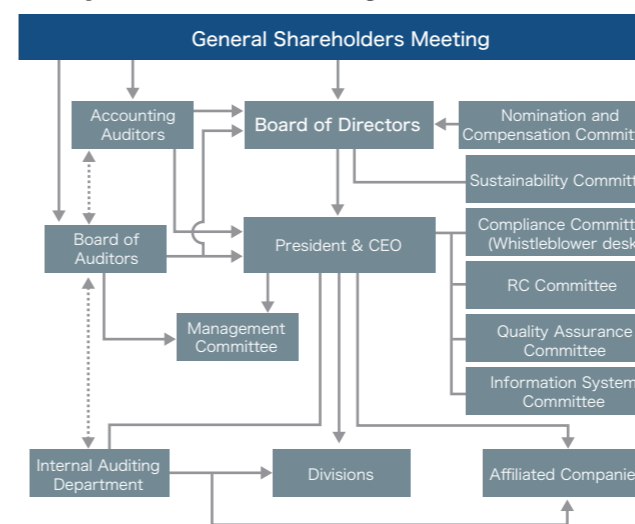
At the Board of Directors meeting held on May 11, 2020, a policy on compensation for individual directors was adopted. Designed to increase linkage with performance and strengthen the motivation of directors to contribute to the enhance of corporate value, compensation for directors (excluding outside directors), which is based on work responsibilities and performance, consists of fixed compensation, performance-linked compensation, and stock-based compensation. Compensation for outside directors and auditors consists only of fixed compensation.

< Evaluation of the Effectiveness of the Board of Directors >

Osaka Soda implemented self-evaluation questionnaires for all the directors and auditors on the effectiveness of the Board of Directors. Based on the collated results of the questionnaires, all the members of the Board of Directors analyzed and evaluated the effectiveness of the Board and discussed future initiatives. As a result, they confirmed that Osaka Soda's Board of Directors is operated appropriately and efficiently and engages in lively and constructive discussions, securing its overall effectiveness.

In addition to deliberating on the medium- to long-term growth strategy and vision that Osaka Soda has worked to implement and the main risks that impact business, the Board of Directors will actively undertake such activities as deliberating on human resource development.

[Corporate Governance System]



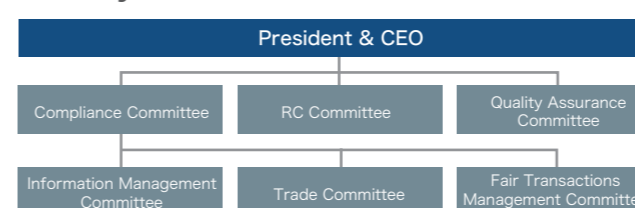
CSR System

Based on our Group Mission Statement, Osaka Soda considers promoting CSR activities to be putting the Mission Statement into practice and engages in extensive dialogue with diverse stakeholders, including customers and suppliers, employees, shareholders and investors, and local communities and governments as well as activities to enhance corporate value.

Osaka Soda has established Conduct Guidelines based on the Group Mission Statement which must be practiced and will fulfill its responsibility to society.

The CSR management system at Osaka Soda is composed of three committees. Each committee is under the direct supervision of the President and promotes CSR activities through the holding of regular committee meetings.

[CSR System]



< Compliance Committee >

Recognizing the importance of compliance (observance of laws and regulations) in business activities, the Compliance Committee formulates and implements the measures necessary for complying with laws and regulations and conducting oneself based on corporate ethics in line with our corporate philosophy.

Three expert committees (Information Management Committee, Trade Committee, and Fair Transactions Management Committee) have been established as subordinate organizations of the Compliance Committee, which undertake such activities as reporting on operations.



① Information Management Committee:

The Information Management Committee establishes policy on the handling and management of information that is held and obtained and optimizes information management.

② Trade Committee:

The Trade Committee conducts the appropriate management of export control of national security-related goods to maintain international peace and security.

③ Fair Transactions Management Committee:

Osaka Soda complies with the Antimonopoly Law, the Unfair Competition Prevention Law, and other relevant laws and regulations to ensure that our company and Osaka Soda Group does business fairly.

< RC Committee >

The RC Committee studies, deliberates on, and promotes measures related to responsible care, ensures environmental preservation, process safety & disaster prevention, occupational safety & health, and chemical safety over the entire product life cycle of chemical substances, from development to manufacture, distribution, use, final consumption, and disposal, and also implements measures for safety, health, and the environment, and works on improvements.

Focusing on safety & disaster prevention and occupational safety & health, Osaka Soda is working to implement continuous improvement related to responsible care activities through the following committees and councils.



RC Committee	Held twice a year
RC Promotion Conference (includes Safety and Health Conference)	Held twice a year
Plant RC Committee (includes Safety & Health and Process Safety & Disaster Prevention Committee)	Held monthly
Workplace Meeting	Held monthly

< Quality Assurance Committee >

The Quality Assurance Committee promotes company-wide deliberations and measures on corporate roles and responsibilities vis-a-vis customers based on a comprehensive quality management system.



Responsible Care (RC) Initiatives

< What is Responsible Care? >

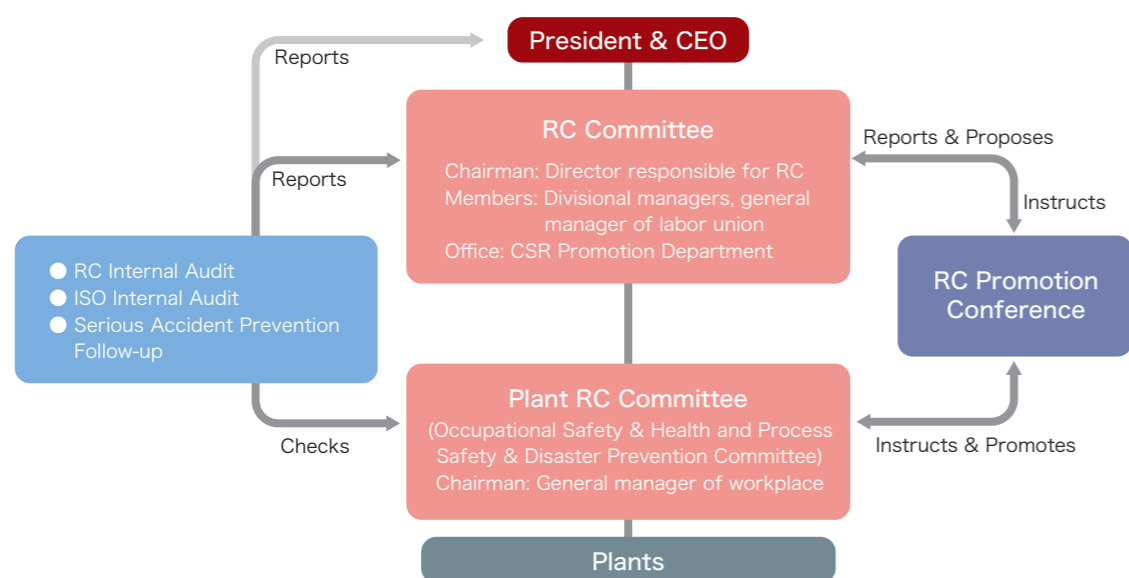
Responsible Care (RC) is a voluntary management initiative taken by companies engaged in the manufacture or handling of chemical substances for implementing improvements and procedures in support of health, safety, and environmental protection. Through this initiative, management policies are adopted to protect the environment and uphold safety over the entire product life cycle of chemical substances from development to manufacture, distribution, use, final consumption, and disposal. This approach is based on the principles of self-direction and acceptance of responsibility.



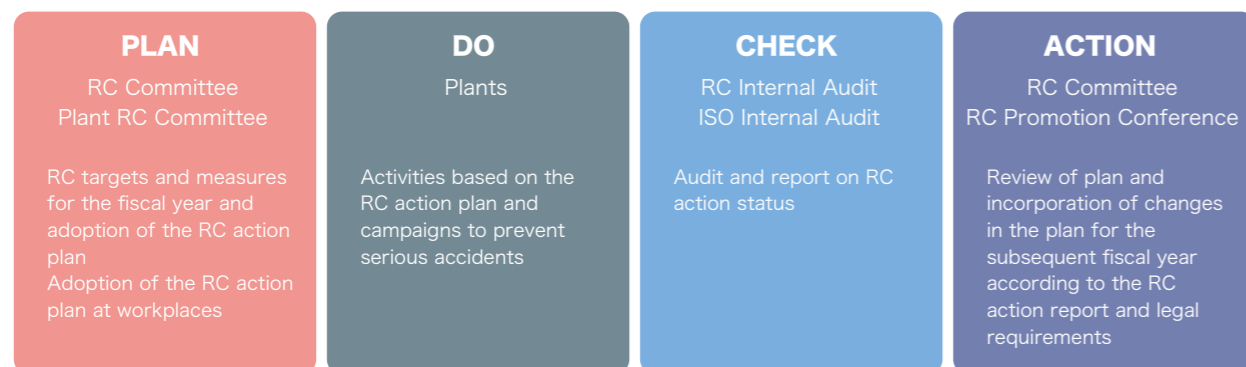
< Basic Approach to Responsible Care >

- Osaka Soda will make efforts for continuous improvement of environmental, health, and safety performance across the entire product lifecycle from product development through disposal as well as facility, process, and technology-related security, and will publish the results of such efforts.
- Management will show strong leadership and strive to preserve the environment and secure health and safety in Japan and overseas.
- In addition to complying with the laws and regulations of individual countries and with international rules, Osaka Soda will strive to raise the level of its voluntary initiatives.
- Through Responsible Care activities, Osaka Soda will contribute to improving quality of life and realizing a sustainable society to enhance public trust.

[Organizational Structure of Responsible Care]



Osaka Soda is continuously improving our RC activities including Occupational Safety & Health and Process Safety & Disaster Prevention by adopting the PDCA cycle.



[Targets and Results of Responsible Care Activities]

	Targets for Fiscal 2022	Results for Fiscal 2022
Environmental Preservation	<ul style="list-style-type: none"> ● Reduce CO₂ emissions ● Reduce industrial waste landfill rate 	Reduced CO ₂ emissions 18 thousand tons as a result of continuous efforts to improve not only facilities, such as introducing highly-efficient electrolyzers, but also process, including optimizing operating conditions. Reduced final landfill rate to 6.3% through initiatives to recycle industrial waste.
Process Safety & Disaster Prevention	<ul style="list-style-type: none"> ● Achieve zero serious accidents ● Comply with laws and regulations and in-house standards, etc. ● Rigorously operate our security management system ● Promote production facility management 	Prevented serious accidents from occurring by mitigating risks through hazard source identification activities (KY, RA, SA, HAZOP, etc.), maintaining high-pressure-gas certification to raise the level of safety management, implementing planned maintenance and autonomous maintenance activities to prevent problems caused by equipment.
Occupational Safety & Health	<ul style="list-style-type: none"> ● Achieve zero lost worktime accidents ● Promote safety and health activities ● Promote better mental and physical health 	Educated employees of the Safety Guidelines, undertook 5S activities, which were centered on worksite safety promotion staff, and conducted training based on skill map, which resulted in approximately the same number of lost worktime accidents as there were in the previous year.
Distribution Safety	<ul style="list-style-type: none"> ● Achieve zero distribution accidents 	Despite working with shipping companies to prevent distribution accidents through such as activities as driver education, the number of distribution accidents increased.
Chemical Safety	<ul style="list-style-type: none"> ● Comply with domestic and international chemical regulations ● Provide product safety information 	Complied appropriately with regulations for chemical products in Japan (Chemical Substances Evaluation Law, etc.) and overseas (REACH in Europe).
Quality Assurance	<ul style="list-style-type: none"> ● Reduce quality issues ● Ensure thorough operation of 4M change management 	Moved forward with such initiatives as undertaking 4M change management, improving product conformity rate, and thoroughly implementing quality compliance, which resulted in the number of quality problems being about the same as that for the previous year.
Dialogue with Society	<ul style="list-style-type: none"> ● Publish RC-related information ● Promote local community interactions and social contribute activities 	Submitted reports to the government and to the Japan Chemical Industry Association and actively engaged in local association and council activities.

Compliance

< Compliance System >

Having formulated a compliance program and set Conduct Guidelines and Rules of Conduct to clarify our basic stance toward corporate ethics and legal compliance, we are working to thoroughly educate all Group officers and employees of these.

We have established a system to address technical legal issues by creating not only a Compliance Committee, which is directly under the president and creates and maintains the compliance system, but also an Information Management Committee, Trade Committee, and Fair Transactions Management Committee as expert committees. To further reinforce the compliance system, we established a system to request legal opinions when necessary by inviting attorneys to serve as outside members of the Compliance Committee and expert committees.

Directors take the lead in adhering to corporate ethics in the Group.

The Internal Auditing Department, which is independent of execution divisions and is directly under the president, was established as the internal audit department and audits operations and prepares audit reports based on Business Audit Rules.

We have also created a system to address violations of laws and ordinances and other compliance violations by operating a whistleblower system that consists of the Compliance Committee's advising desk and an independent attorney as a reporting desk based on whistleblower regulations that stipulate such items as guaranteeing the anonymity of whistleblowers if desired and not subjecting whistleblowers to disadvantageous treatment.

The Group has no connections to anti-social forces and entities that threaten the order and safety of civil society and refuse all unreasonable demands.

< Compliance Program >

Group officers and employees thoroughly comply with laws and ordinances and act in a corporate ethical manner in line with the Compliance Program, which is based on the Mission Statement. It is understood that in order to continue to grow the business and enhance corporate value, the most important thing is for each person to be honest and possess the confidence and sense of responsibility of a professional, accept the individuality of others and diversity, and spare no effort to achieve targets, and to put this into practice.

Human Rights Policy

The Group recognizes that human rights are the most basic item when conducting business activities and respects the human rights of all people. The Group supports and respects the UN's international norms related to human rights, and in March 2023, formulated the Osaka Soda Group Human Rights Policy, which is based on UN Guiding Principles on Business and Human Rights, which were approved by the UN Human Rights Council in 2011. At a time when companies are expected to play a greater role in respecting human rights in recent global business, this policy states the Group's thoughts on respecting human rights as the social responsibility of companies and achieving sustainable growth along with society. The Group will implement human rights due diligence compliant with those guiding principles and expand initiatives to provide aid and handle complaints.

Message from Outside Directors



Outside Director **Bun'yu Futamura**

Apr. 1972 Joined NIPPON STEEL CORPORATION
 Jun. 2001 Director, Member of Board, NIPPON STEEL
 Apr. 2006 Managing Director, Member of the Board, NIPPON STEEL
 Jun. 2006 Managing Executive Officer, NIPPON STEEL
 Apr. 2007 Vice President, Executive Officer, NIPPON STEEL
 Jun. 2007 Representative Director, Vice President, NIPPON STEEL
 Apr. 2009 Director, Member of Board, NIPPON STEEL
 Jun. 2009 Representative Director and President, NIPPON STEEL Chemical Co., Ltd. (present NIPPON STEEL Chemical & Material Co., Ltd.)
 Jun. 2013 Director and Advisor, NIPPON STEEL Chemical
 Apr. 2014 Advisor, NIPPON STEEL Chemical
 Jun. 2015 Outside Director, Tsukishima Kikai Co., Ltd. (present Tsukishima Holdings Co., Ltd.)
 Jun. 2015 Outside Director, Osaka Soda Co., Ltd. (current position)

Promotion of Sustainability Management

This year is the first fiscal year of the medium-term management plan (FY2023–FY2025), the three pillars of which are “continuous strengthening of our base in existing businesses,” “strengthening of new product creation capabilities”, and “promotion of sustainability management.”

We are working to address various issues to both contribute to achieving a sustainable society and generating sustainable growth for the Group itself.

In order for Osaka Soda, a manufacturing company whose main field is GNT, to remain “sustainable” as it approaches the 120th anniversary of the founding of the Group, it is vital that the following three activities take root in the organization. First, we must reinforce our development capabilities to continue to create GNT products by always responding to the times, market trends, and individual needs of customers. Second, we must update production, facility, and information technologies that age and grow obsolete. Finally, we must continually develop human resources, which is the most important activity as it is the foundation of everything.

From these perspectives, I will monitor the sustainability of the Company and prepare for risks.



Outside Director **Hakaru Hyakushima**

Apr. 1981 Joined Ministry of Finance
 Jul. 1999 Assistant Regional Commissioner of Criminal Investigation Department of Tokyo Regional Taxation Bureau
 Jul. 2011 Deputy Commissioner of Commissioner's Secretariat of National Tax Agency
 Jul. 2012 Regional Commissioner of Nagoya Regional Taxation Bureau
 Apr. 2015 President of Japan Mint
 Apr. 2018 Deputy Director-General of Minister's Secretariat of Ministry of Finance
 Apr. 2019 Professor of Faculty of Management of Otemon Gakuin University (current position)
 Jun. 2019 Outside Director, Osaka Soda Co., Ltd. (current position)
 Oct. 2019 Part-time lecturer of Kyoto University School of Government
 Jun. 2020 Outside Audit & Supervisory Board Member of Sumitomo Riko Company Limited (current position)
 Mar. 2021 Trustee, Kyoto International Conference Center (current position)
 Jun. 2022 External Board Director of FUSO CHEMICAL CO., LTD (current position)

Working to enhance corporate value

I have been involved in the management of organizations for many years at government agencies and am now working on administrative law training and research at a university. Based on this experience, I would like to fulfill my duties as an outside director and member of the Nomination and Compensation Committee from an independent perspective while keeping in mind the need to construct a higher quality internal control system and ensuring the effectiveness of that system.

Japan Mint, which I was formerly responsible for managing, is where the Japan's soda industry was born in the Meiji Era. Caring on that history, Osaka Soda has taken on the challenge of undertaking innovative product development of global niche top products in various fields. I would like to do all that I can to further enhance the corporate value of Osaka Soda.



Outside Director **Okiko Miyata**

Apr. 1975 Research Student, Biopharmaceutical Chemistry (present Medicinal Chemistry) Laboratory, Kobe Women's College of Pharmacy (present Kobe Pharmaceutical University)
 Apr. 2001 Assistant Professor, Medicinal Chemistry Laboratory, Kobe Pharmaceutical University
 Apr. 2007 Associate Professor, Medicinal Chemistry Laboratory, Kobe Pharmaceutical University
 Apr. 2008 Professor, Medicinal Chemistry Laboratory, Kobe Pharmaceutical University
 Feb. 2016 Visiting Professor, Graduate School of Science, Osaka City University (present Osaka Metropolitan University)
 Apr. 2016 Special Assistant to President, Kobe Pharmaceutical University
 Apr. 2019 President, Director, Kobe Pharmaceutical University
 Jun. 2021 Outside Director, Osaka Soda Co., Ltd. (current position)
 Apr. 2022 Professor Emeritus, Kobe Pharmaceutical University (current position)
 Jun. 2022 Chairman of the Board of Directors, Kobe Pharmaceutical University (current position)

Aiming to further enhance corporate value that makes it possible to continually contribute to society

Companies must simultaneously contribute to society and generate profits through their business activities. The Group posted dramatically greater profits than the record profits of the previous year and is generating continuous growth. However, it is necessary to further improve the capabilities of the Group in order to maintain that growth. Therefore, important issues include human resource development, organizational capabilities, risk management, and creating high value added products, and the Board of Directors conducts extensive and full deliberations on these issues. When taking part in deliberations, I make use of the experience that I have gained through my involvement in education, research, and operations at universities. Furthermore, through plant tours and discussions with young research employees, I see things from a different perspective and use that when making evaluations. On account of the above activities, I truly feel that Osaka Soda has eliminated barriers and created an environment conducive to the open exchange of ideas. As an outside director, I will use my meager abilities to the greatest extent possible so that Osaka Soda can achieve sustainable growth as a company that contributes to society by making the greatest possible use of its human capital and further strengthening the Company through reinforced organizational capabilities.

Directors and Auditors (As of June 29, 2023)



Director (outside) **Hakaru Hyakushima** Director (outside) **Bun'yu Futamura** Director and Lead Executive Officer General Manager, Healthcare Division **Takeshi Kimura** Full-time Auditor (outside) **Shigetsugu Fujiyabu** Auditor (outside) **Shinji Mori**

Director (outside) **Okiko Miyata** Director and Lead Executive Officer General Manager, Engineering and Technology Division **Atsuo Konishi** Representative Director, President and CEO **Kenshi Terada** Full-time Auditor **Yasushi Segawa**

< Director Skill Matrix >

Director		Knowledge, experience, capabilities, etc., expected of Director					
	Name	Management experience	Global business experience	Finance, account, and M&A	Business strategy and marketing	R&D, production, and quality management	Compliance and risk management
	Kenshi Terada	●	●	●	●	●	●
Inside	Atsuo Konishi					●	●
	Takeshi Kimura	●	●		●		●
	Bun'yu Futamura	●		●	●	●	●
Outside	Hakaru Hyakushima	●		●		●	●
	Okiko Miyata	●	●		●	●	●

Creating an Employee-friendly Workplace, "Our Ideal Image" for Fiscal 2035

As "our ideal image" for fiscal 2035, the 120th anniversary of our founding, the Group aims to become "a company where employees can fully demonstrate their abilities." Creating an employee-friendly workplace and developing human resources were designated as the Group's materiality in order to achieve this, and the Group has been focused on reforming corporate culture and organizational culture, expanding educational opportunities, promoting women's active engagement, and promoting work-life balance.

< Developing the Company's Internal Environment >

In order to develop the company's internal environment, Osaka Soda not only created and operates several types of systems, such as a flextime system, work interval system, telecommuting system, and a system to encourage male employees to take childcare leave, but is also moving forward with efforts to foster a workplace culture that is more understanding of diverse workstyles. We are working to develop a workplace environment in which the appropriate person is assigned to the appropriate position in line with the business strategy regardless of nationality, gender, whether new graduate or mid-career hire, or other attribute, diverse human resources respect each other, and all employees play an active role.

Initiatives for Promoting Women's Active Engagement

It is necessary to promote diversity in order to achieve sustainable business growth and strengthen global competitiveness. In April 2021, we formulated the "General Employer Action Plan Based on Act on the Promotion of Women's Active Engagement in Professional Life" in order to create an employment environment in which all employees, both male and female, can play an active role. At the current time, there are several issues, including raising the ratio of female employees, ratio of female managers (including section chiefs), and ratio of male employees who take childcare leave.

Therefore, touting the targets of "raising the ratio of female new graduates hired to 20% or more," "increasing the ratio of female managers (including section chiefs) 1.5x (vs. fiscal 2021) by March 31, 2026," and "encouraging male employees to take childcare leave," Osaka Soda is working to make improvements.

We implemented various initiatives related to these KPI in fiscal 2022. A new personnel system and education system were created to increase employee motivation and develop human resources, and explanatory meetings for managers regarding the childcare leave system and response to revisions to laws were held.

Furthermore, we are working to support career development through such initiatives as participating in seminars with other companies.

< Certified as a 3-Star Osaka City Leading Company in Women's Participation >

In May 2023, Osaka Soda was certified as a 3-star Osaka City Leading Company in Women's Participation by the City of Osaka.



We won a higher rating than the 2 stars we received in 2022.

Promoting Work-life Balance

Osaka Soda is implementing various initiatives, such as reducing workhours, limiting long workhours, and encouraging the use of paid leave and childcare leave by male employees so that all employees can enjoy a workstyle that balances work and private life.

In fiscal 2022, we recommended that employees who seldom take paid leave do so to "encourage the use of annual paid leave (target 70% of more)," a KPI, and took various steps, such as providing explanations of childcare leave to male employees who have registered the birth of a child, educating employees of childcare-related systems, and introducing electronic requests, in order to "encourage male employees to use the childcare leave system," a KPI.

< Certified as a Health & Productivity Management Outstanding Organization for 2023 >

Osaka Soda has been recognized as a Certified Health & Productivity Management Outstanding Organization for 2023 in the certification program operated by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council).

In the Certified Health & Productivity Management Outstanding Organization program, the Nippon Kenko Kaigi certifies corporations that practice health management at a level of particular excellence. This program is founded in initiatives for addressing regional health issues and the Nippon Kenko Kaigi's health promotion initiatives.



Health Management Declaration

In order to increase employee engagement and maximize productivity, creativity, and motivation, Osaka Soda is committed to health management to maintain and improve the physical and mental health of employees and their families, and to ensure a vibrant and safe work environment.

Basic Policy

1. We will strive to provide information and create opportunities to raise awareness so that employees and their families can improve their health literacy and work autonomously to maintain and promote their physical and mental health.
2. We will strive to create a workplace environment in which diverse human resources can work with enthusiasm and peace of mind, as well as to stimulate communication and foster an open workplace culture.
3. Regarding health as an important management issue, we will actively engage in various measures and continue to verify and improve their impact.

< Recommending Health Checkup Re-examination for Employees >

Osaka Soda strives to ensure and manage employees' health by providing health checkups for all employees once a year and recommending re-examinations for employees who are eligible for post-checkup reexamination. We are also promoting health by recommending specific health guidance, and other measures. Having set "checkup findings, re-testing/detailed testing rate of 70% or more," and "checkup findings of less than 30%" as KPI, we are promoting the better health of employees.

< Providing Stress Checks >

Osaka Soda provides annual stress checks to support the mental health of employees at all Group business sites and conducts workplace environment improvement activities based on the results of those checks.

< Mental Health Care >

Regarding mental healthcare, in-house training and education classes by outside instructors were held once at each business site of Osaka Soda and the Sanyo Fine Matsuyama Plant. Having set "absences from work due to mental health issues of less than 0.6%" as a KPI, we will work to maintain and improve the mental health of employees.

Human Resource Development Policy

As for developing human resources, Osaka Soda aims to contribute to the growth of society and the Group by creating a work environment in which each and every employee feels job satisfaction.

In order to make it possible for employees to work for many years with peace of mind based on an envisioned future career plan, we have introduced and started to provide career training and conduct early career rotations as one element of the human resource development policy to ensure diversity. Furthermore, we are revising our personnel system and education and training system and working to make it possible for all employees to make the most of their abilities based on the Group Mission Statement.

Reforming Corporate Culture and Organizational Culture

Based on ideas included in our Vision Statement (respect the values of each and every one of our employees and aim to

be a company that grows together) and Human Resources Policy (self-disciplined members of society and people who continuously achieve personal growth), which are elements of the Group Mission Statement, it was decided to revise the personnel system for general employees (expected to come into effect in April 2023), in addition to that for management.

Expanding Educational Opportunities

In order to realize autonomy and self-growth for all employees as stated in our Human Resources Policy, the Group has established an education plan that emphasizes setting learning goals, conducting training interviews, and autonomous skill development to fulfill the roles required of our employees. As part of this effort, Osaka Soda has established competency requirements (knowledge and skills appropriate to roles and tasks) to guide human resource development, and are developing independent learning support tools and training programs to help employees acquire these skills.

In fiscal 2022, we started to create an employee skill map in order to "clarify skills by grade," a KPI, and created a newly stipulated education system tied to skill requirements and introduced autonomous learning support tools to "review education and training programs," a KPI.

< Human Resource Development Program >

As part of the Human Resource Development Program, in fiscal 2022, Osaka Soda conducted five grade-specific training sessions, two career training sessions, and one theme-specific training session, which a total of 203 employees took part in.

< Status of National Qualification Acquisition >

In order to improve the work skills of employees, Osaka Soda encourages employees to acquire national qualifications by setting related targets for each business site. In fiscal 2022, an additional 37 employees acquired main national qualifications.

[Status of Main National Qualification Acquisition: Total Number of Qualified Employees 1,716 (cumulative)] (as of March 2023)

Name of qualification	Category	Number of qualified employees
Health Officer	Class 1	80
Food Hygiene Officer	-	15
Pollution Control Officer	Water Class 1	146
	Atmosphere Class 1	99
Qualified Person for Energy Management	-	77
High Pressure Gas Manufacturing Process Safety Manager	Class A and Class B Chemical	84
	Class A and Class B Machinery	212
Boiler Engineer	Special level	5
	Level 1	140
	Level 2	288
Hazardous Materials Engineer	Class A	312
Poisonous and Deleterious Substances Manager	-	76
Industrial Waste Processing Facility Manager	-	8
Specially Controlled Industrial Waste Manager	-	58
High Pressure Gas Sales Safety Chief	-	26
Chief Electricity Engineer	Class 2	9
	Class 3	26
	Class 1	9
Electrician	Class 1	9
	Class 2	46

Responsible Care Policies

< Process Safety & Disaster Prevention >

- (1) We will make efforts to prevent major accidents and disasters with the mindset that "everything begins with safety."
- (2) We will comply with relevant laws and regulations, promote security management of facilities, and strictly follow our crisis management system during emergency situations.

< Occupational Safety & Health >

- (1) We will foster a culture of safety, reduce potential hazards and strive to eliminate workplace accidents.
- (2) We will make efforts to establish a pleasant workplace environment, and to maintain and promote the health of our employees.

< Distribution Safety >

- (1) We will promote comprehensive safety in all our logistics operations and reduce risks in the transport and distribution of our products.

place of a business, in order to "improve security management level," a KPI. As for particulars, the Mizushima Plant and Okayama Plant underwent security certification inspections and internal audits (interior of plant and head office).

Security Management Policy

1. Strive for zero accidents and zero injuries based on the concept that safety is the starting point for all activities
2. Strictly follow the crisis management system during emergency situations
3. Promote security management of facilities and strive to improve security capabilities
4. Maintain and continually improve the security management system
5. Uphold specific requirements set forth at the plant
6. Establish security management targets based on this policy and strive to achieve them
7. Review security management targets at least once a year at the plant RC Committee
8. Disseminate this policy to all plant workers for greater understanding and to ensure proper implementation, upkeep, and improvement



Disaster prevention inspection

< Promoting Facility Management >

A facility management system has been introduced and put into operation for systematic facility management. In addition, to encourage autonomous maintenance activities, Osaka Soda helps personnel gain qualification for the Autonomous Maintenance Certificate. In fiscal 2022, 13 employees qualified for the Autonomous Maintenance Certificate (level 1). In the same fiscal year, in order to "promote facility management (zero serious accidents)," a KPI, we undertook security management at the Mizushima Plant and Okayama Plant based on the approved high-pressure-gas place of a business system, which resulted in zero serious accidents (class A accidents). However, there were two class A (minor) accidents. We are continuing to reinforce our security management system.

Process Safety and Disaster Prevention Initiatives

Osaka Soda is taking action for security and disaster prevention, including establishing a basic policy for security management implemented at each business site. Furthermore, Osaka Soda has built a security management system for security, facilities, and operation to be implemented at each business site under the purview of the Group-wide and individual business site RC committees. In addition, Osaka Soda strives to prevent serious accidents with both soft and hard measures. These include training operators to improve their field capabilities and operating techniques, and carrying out systematic maintenance management for facilities (planned and preventive maintenance).

< Identifying Hazard Sources and Mitigating Risks >

HAZOP and other methods are used to identify hazard sources, conduct risk assessments, and systematically implement risk mitigation countermeasures according to the magnitude of risk. In fiscal 2022, we thoroughly implemented TBM-based KY, particularly before work, in order to "mitigate risks through hazard source identification activities, including KY, RA, SA, HAZOP," a KPI.

< Improving Security Management Level >

Mizushima Plant and Okayama Plant have established and are operating a security management system based on the Security Management Policy. As of January 2022, these were certified by the Minister of Economy, Trade and Industry as approved places of business under the High Pressure Gas Safety Act.

In fiscal 2022, we undertook various activities related to operating a security management system, including maintaining certification as an approved high-pressure-gas

< Emergency Call >

In the event of a major earthquake or other disaster or emergency, our safety confirmation system simultaneously sends e-mails and other communications to employees' registered contact information. Employees at business sites in the area of an earthquake of seismic intensity 5 (on the Shindo scale) or higher are automatically sent safety confirmation messages.

< Disaster Prevention Drills >

Each site participated in local disaster prevention drills. Comprehensive disaster prevention drills, reporting and communication drills, oil spill response team dispatch drills, and high pressure gas disaster prevention drills were also held within sites. In fiscal 2022, we conducted comprehensive disaster training drills and other activities at each plant and workplace in order to "conduct disaster drills in anticipation of large-scale earthquakes, etc.," a KPI. We continue to improve our response capabilities in the case of a major earthquake or other disaster.



Kitakyushu Plant



Amagasaki Plant



Matsuyama Plant



Mizushima Plant

< Business Continuity Plan >

In preparation for a major earthquake, which is forecast to occur in the near future, Osaka Soda has formulated a Business Continuity Plan (BCP) for each manufacturing site assuming damage to production facilities at each workplace and based on forecasts for the restoration of utilities including various raw materials, water, and electricity as well as logistics. Moreover, Osaka Soda has also prepared emergency response guidelines at each workplace and made all employees aware of the chain of command in an emergency and the procedures for confirming safety. In fiscal 2022, we formulated a large-scale investment plan for 2023–2025 in order to "plan renewals of aging facilities," a KPI.

Osaka Soda has also formulated a BCP to prepare for large-scale outbreaks of influenza or other infectious diseases, and is taking into consideration the securing of production personnel by preventing infection among employees and establishing a mutual support system between business sites.

Occupational Safety and Health Initiatives

< Preventing Lost Worktime Accident >

By working to implement such measures as serious accident prevention and KY activities and regular meetings of the RC

Committee (includes Safety & Health and Process Safety & Disaster Prevention Committee), we are working to prevent lost worktime accidents with the goal of "zero lost worktime accidents", a KPI.

[Number of Annual Lost Worktime Accidents (Year)]

(year)	2018	2019	2020	2021	2022
Number of lost worktime accidents	0	1	1	3	2
Frequency rate of lost worktime accidents*	0.00	0.70	0.71	2.02	1.34

* Frequency rate = (No. of victims of lost worktime accidents ÷ total working hours) x 1,000,000
Frequency rate of accident victims per 1,000,000 working hours

< Fostering Hazard Prediction (KY) Trainers >

Each plant and the Research Center foster hazard prediction (KY) trainers through external courses, which are reflected in workplace KY activities.



< Providing Non-Technical Skills Education >

Non-technical skills (NTSs) are skills that supplement technical skills and contribute to the safe and efficient execution of work and consist of situational awareness, communication, leadership, courage to speak out, verbalizing, reflection, and overcoming the authority gradient.

Osaka Soda provides NTSs education at 5 plants to prevent errors related to human factors and ensure safety.



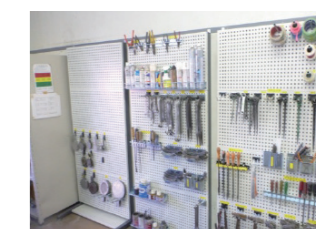
< Promoting 5S* Activities >

Our responsible care action programs at each business site include systematically carrying out 5S activities. Here, work procedures are reviewed in the form of small-group activities, tagging unnecessary items, and 3F management (fixed position, fixed term, fixed quantity), continuously incorporating innovations tailored to tasks at each workplace. In fiscal 2022, we conducted 5S activities, primarily by safety promotion staff and 5S leaders, to "promote 5S activities", a KPI. We will continue to work to get this to take root.

*5S is an abbreviation for Sort, Systematize, Sweep, Standardize, and Self-Discipline.



5S visualization board



3F management

Providing Safety Information

< Safety Data Sheets (SDSs) >

Osaka Soda has created safety data sheets (SDSs) for our products and published many of them on our website. In fiscal 2022, we once again made necessary revisions to provide the latest information out of consideration of "preparing and providing product Safety Data Sheets (SDSs) on our corporate website," a KPI.

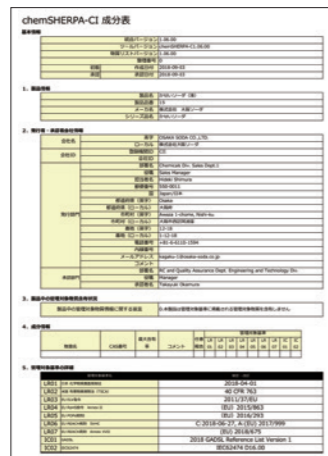


Safety Data Sheets (SDSs)

< JAMP*1 chemSHERPA >

Osaka Soda always makes efforts for substance management of our products and collection of information. Osaka Soda prepares Information Sheets on the Content of Certain Chemical Substances using Osaka Soda's own format to supplement our SDSs, as well as chemSHERPA*2 from the Joint Article Management Promotion-consortium (JAMP) in order to respond to requests from customers regarding detailed information on the content of chemical substances, including RoHS*3 and SVHC*4 in addition to Japan's Chemical Substances Evaluation Law*5. Osaka Soda responds promptly to regular list revisions and provides information to customers. In light of the fact that "providing information on chemical substance content through JAMP chemSHERPA" a KPI, we worked to provide the latest product information through "chemSHERPA" in fiscal 2022, too.

*1 JAMP is an acronym for Joint Article Management Promotion-consortium.
 *2 chemSHERPA is a sheet for basic information transfer to facilitate sharing of information on chemical substances in products that lists the name of laws and regulations, etc., under which product constituents are declarable substances and whether a product contains a declarable substance or not.
 *3 RoHS is an acronym for Directive on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment.
 *4 SVHC is an acronym for Substances of Very High Concern with carcinogenic and mutagenic effects, reproductive and developmental toxicity and other serious impacts on human health and the environment.
 *5 Chemical Substances Evaluation Law is a shortened title for the Act on the Regulation of Manufacture and Evaluation of Chemical Substances.



chemSHERPA

Distribution Safety Initiatives

< Holding Transportation Subcommittee Meetings and Emergency Response Drills >

Each plant held periodic Transportation Subcommittee meetings and strove to ensure safe transportation by freight companies and drivers.

The relevant people at plants and freight companies held joint emergency response drills and reporting and communication drills.



< Yellow Cards and GHS Label >

We have prepared "yellow cards" for products classified as toxic substances, deleterious substances, and hazardous materials. Furthermore, we provided education, reporting, and communication drills for drivers aimed at ensuring safety during transportation and an appropriate response in an emergency.

In order to ensure safety during the mixed transport and storage of products in drums and oil drums, we affixed "GHS labels" (container yellow cards) that show emergency measures, the guideline number and the UN number to product containers.



Yellow card

GHS label

< Distribution Safety Commendations >

Under its freight company commendation program, the Group recognizes outstanding drivers who have significantly contributed to the reduction of logistics accidents.

Kitakyushu area: 2 drivers,
 Amagasaki area: 4 drivers,
 Matsuyama area: 2 companies,
 Mizushima area: 2 drivers

Responsible Care Policies

< Chemical & Product Safety >

- (1) We will strive to eliminate quality problems, and provide products that will satisfy our customers.
- (2) We will strive for proper chemical management by ensuring the safety control of items such as high-pressure gases, hazardous materials, and poisonous and deleterious substances.
- (3) We will take measures so our business partners will be able to safely handle chemicals.

Quality Management and Assurance

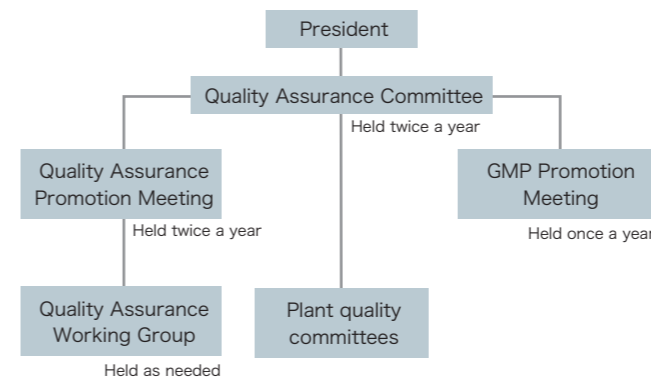
< Quality Assurance Policy >

In order to "provide products that satisfy its customers," the Group continuously works to establish product reliability and safety and improve quality assurance levels. To this end, Osaka Soda has adopted the methods in ISO 9001, the international standard for quality management systems, and ICH-GMP (Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients) for quality management.

< Quality Assurance Organization Structure >

Our quality assurance organization is headed by the Quality Assurance Committee, which reports directly to the President. This committee manages industrial manufacturing products such as chemicals, functional chemicals, and polymers, products subject to GMP such as modified silica gel, and external products such as outsourced products, as indicated in the figure below.

In addition, ISO 9001-certified plant conduct external audits and internal audits, and GMP organizations conduct internal audits for continuous improvement.



< Improving Quality Assurance Level >

Quality audits are conducted twice a year at each plant to prevent quality incidents and ensure consistent quality. In parallel with quality audits, the quality assurance group of each plant is also involved in efforts to raise the level of quality assurance by examining quality incident case studies and providing compliance education on the importance and role of quality assurance groups. In fiscal 2022, Osaka Soda standardized and revised the format of its QC process schedule in order to "curb non-conforming products," a KPI.

Furthermore, we set material purchase specification sheets with suppliers and confirm that analysis figures of delivered raw materials meet the acceptance standards.

< Preventing Quality Problems >

Osaka Soda operates a database in order to promptly respond to and correct quality problems such as complaints. By sharing the information in the database, Osaka Soda conducts company-wide horizontal deployment of corrective action to prevent the occurrence of similar quality problems.

Management Based on ISO 9001

< ISO 9001 Certification By Business Site >

As part of our RC activities, Osaka Soda implements initiatives on safety and quality assurance for the chemicals and products in our business activities as well as to respond promptly to customer requirements and to prevent quality problems.

Accordingly, our three main plants have ISO 9001 certification, the international standard for quality management systems. As a part of ISO activities, each workplace conducts a management review to check customer satisfaction levels which are evaluated through the marketing department every six months in our efforts to enhance customer satisfaction through continuous improvements as Osaka Soda strives to provide products that satisfy our customers.



Amagasaki Plant

Matsuyama Plant

Mizushima Plant

Plant	Date of Certification	Certifier	Registration Number	Date renewed
Amagasaki Plant	March 1996	Japan Quality Assurance Organization	JQA-1181	March 2021
Matsuyama Plant	October 1995	Japan Quality Assurance Organization	JQA-0998	June 2021
Mizushima Plant	June 1994	Japan Quality Assurance Organization	JQA-0539	June 2023

Chemical Substance Management

< Chemical Substance Management Guidelines >

As for chemical substance management guidelines, the in-house database is updated when necessary to comply with chemical substance regulations both in Japan and overseas and address such issues as revisions to those regulations.

- PRTR Law (Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement)

- Chemical Substances Evaluation Law (Act on the Regulation of Manufacture and Evaluation of Chemical Substances)
- Chemical Substances Management Law (Act on the Assessment of Releases of Specified Chemical Substances in the Environment and the Promotion of Management Improvement)
- Fluorocarbons Law (Act on Rational Use and Appropriate Management of Fluorocarbons)
- Overseas chemical substance-related regulations (EU, England, Turkey, Asia, etc.)

< Fiscal 2022 Transfers of Substances Subject to PRTR Law >

Substances subject to PRTR Law (unit: t)	Emissions				Transfers	Emissions and transfers
	Atmospheric	Water resources	Soil	Total		
N-Hexane	39.22	0	0	39.22	18.96	58.18
Toluene	0.97	0	0	0.98	82.97	83.95
Butyl alcohol	0	0	0	0	0	0
3-Chloropropylene	2.79	0	0	2.79	0	2.79
Trichloroethylene	0.81	0	0	0.81	50.51	51.32
Epichlorohydrin	1.87	0	0	1.87	0	1.87
1,2-Dichloropropane	0.08	0.05	0	0.13	0	0.13
1,3-Dichloropropene (D-D)	0	0	0	0	0	0
Diallyl phthalate	0	0.73	0	0.73	0	0.73
Dimethylamine	0.1	0.27	0	0.37	0	0.37
Allyl alcohol	0.62	0	0	0.62	0	0.62
1-Allyloxy-2,3-epoxypropane	0.53	0	0	0.53	0	0.53
Ethylene oxide	0.1	0	0	0.1	0	0.1
1,2,3-Trichloropropane	0.01	0	0	0.01	0	0.01
1,2-Epoxypropane	0.03	0	0	0.03	0	0.03
Chlorodifluoromethane (HCFC-22)	0.85	0	0	0.85	0	0.85
Ferric chloride	0	0	0	0	0	0
Organotin compounds	0	0	0	0	0	0
Tributyl phosphate	0	0	0	0	0	0
Dichloromethane	0.02	0	0	0.02	13.16	13.17
Ethyl acrylate	0	1.22	0	1.22	0	1.22
n-butyl acrylate	0	0.96	0	0.96	0	0.96
Pyridine	0	0	0	0	1.21	1.21
Tertiary butyl hydroperoxide	0	0	0	0	0	0
Pentaerythritol	0	0	0	0	0	0
Methyl alcohol	0.05	0	0	0.05	0	0.05
Phthalic anhydride	0	0	0	0	0	0
Acetone	0	0	0	0	0	0
Ethylene glycol	0	0	0	0	0	0
Total	48.05	3.23	0	51.28	166.8	218.09
Dioxins [-]*	5.961	0.509	0	6.47	0	6.47

* Unit for dioxins: mg-TEQ/year

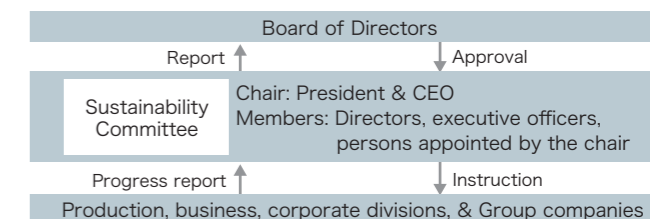
Addressing Climate Change Issues

< Addressing Climate Change Issue >

In light of proposals by the Task Force on Climate Related Financial Disclosures (TCFD), Osaka Soda has decided on governance, strategy, risk management, and metrics and targets. This fiscal year, we revised the body responsible for evaluating and managing climate-related risks and opportunities and moved forward with calculating the impact that the various risks and opportunities have on the Group's business and Scope 3 emissions and similar activities. Since fiscal 2022, we have disclosed the various types of Scope 1 and Scope 2 emissions and Scope 3 emissions.

< Governance >

On October 1, 2022, Osaka Soda established the Sustainability Committee, creating a system for receiving and overseeing reports on climate change. In addition to ascertaining the state of achieving KPI and managing progress, reports are regularly submitted to the Board of Directors and proposals are made.



< Strategy >

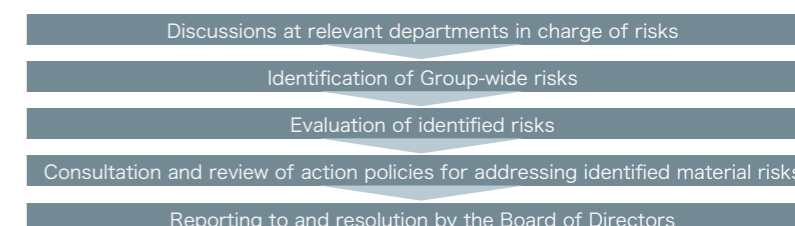
Osaka Soda used the 1.5/2°C and 4°C scenarios to identify risks associated with the transition to a decarbonized society (transition risks) and risks associated with physical impacts of global warming (physical risks), respectively. Under the 1.5/2°C scenario, transition risks are assumed to be relatively higher than physical risks, while under the 4°C scenario, physical risks such as reduced capacity utilization and unstable resource supply due to frequent disasters such as typhoons and floods are assumed to be relatively higher. Given this, Osaka Soda has identified the following risks and opportunities related to climate change that are important to us, and has formulated action policies for these.

	Risk/Opportunity Type	Period of Occurrence	Business Impact	Action Policy	
Transition risk*1	Policies and regulations	Increased carbon price and other regulatory compliance costs	Short term	High	<ul style="list-style-type: none"> Introducing high-efficiency equipment Promoting energy conservation activities Streamlining production processes Promoting use of green energy
		Increased offset credit price	Long term	High	
	Markets	Increased prices and difficulties in procurement of some materials due to regulations	Short term	Medium	<ul style="list-style-type: none"> Requesting and actively supporting decarbonization activities in the supply chain
Physical risk*2	Acute	Decreased demand for commercial products with high environmental impact	Short term	Medium	<ul style="list-style-type: none"> Studying low-carbon production processes
		Decreased capacity utilization of business sites due to sudden disasters	Medium term	Medium	<ul style="list-style-type: none"> Upkeep of disaster prevention equipment, goods, and materials Conducting disaster drills in anticipation of large-scale earthquakes, etc. Reviewing BCP Planned renewals of aging facilities
	Chronic	Stopped operations due to damage in the supply chain	Medium term	Medium	<ul style="list-style-type: none"> Implementing supply chain management for sustainable procurement
		Unstable supply of natural resources, water, electricity, raw materials, etc.	Medium term	Medium	<ul style="list-style-type: none"> Diversifying raw material suppliers
Opportunity	Products and services	Increased subsidies for the development and implementation of environmentally friendly technologies	Short term	High	
		Increased demand for materials, components, and solutions for environmentally friendly equipment	Short term	Medium	<ul style="list-style-type: none"> Developing materials reducing environmental impact and conserving energy by improving energy efficiency, extending service life, and eliminating solvents
	Markets	Captured business opportunities by developing environmentally friendly technologies ahead of competitors	Short term	Medium	
	Markets	Enhanced corporate image by promoting disclosure of climate-related information	Short term	Medium	<ul style="list-style-type: none"> Disclosing investment and development information for growth of environmentally friendly businesses

*1 Assumed to occur most significantly under the 1.5/2°C scenario *2 Assumed to occur most significantly under the 4°C scenario, etc.

< Risk Management >

At Osaka Soda, appropriate response to climate change is an important issue and is discussed in the relevant departments. These discussions are regularly reported to the Board of Directors.

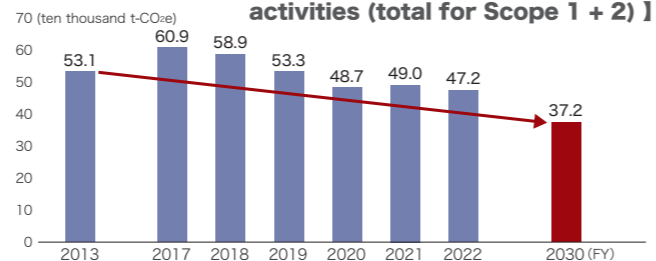


< Metrics and Targets >

Having selected CO₂ emission as a climate change evaluation metric, we aim to reduce fiscal 2030 CO₂ emissions (total for Scope 1 + 2) 30% compared to fiscal 2013.

Fiscal 2022 greenhouse gas (GHG) emissions were 873 thousand t-CO₂e (Scope 1 + 2, 472 thousand t-CO₂e).

[Reduction target for CO₂ emissions from business activities (total for Scope 1 + 2)]



Target of calculations: Osaka Soda business sites in Japan (calculated based on Act on Rationalizing Energy Use and Act on Promotion of Global Warming Countermeasures reports).

[GHG emissions (Scope 1, 2, and 3)]

Scope 1		Scope 2		Scope 3	
Category	CO ₂ emissions [thousand t-CO ₂ e]	Category	CO ₂ emissions [thousand t-CO ₂ e]	Category	CO ₂ emissions [thousand t-CO ₂ e]
Direct emissions	78.5	Indirect emissions from energy sources	393.4	Other indirect emissions	401.4
Scope 3 category	CO ₂ emissions [thousand t-CO ₂ e]	Scope 3 category	CO ₂ emissions [thousand t-CO ₂ e]		
Category 1 Products and services purchased	263.9	Category 9 Shipping, delivery (downstream)	-*2		
Category 2 Capital goods	7.4	Category 10 Processing of products sold	-*2		
Category 3 Fuel and energy activities not included in Scope 1 and 2	71.7	Category 11 Use of products sold	-*2		
Category 4 Shipping, delivery (upstream)	53.9	Category 12 Disposal of products sold	-*2		
Category 5 Waste from business	3.3	Category 13 Lease assets (downstream)	Excluded*3		
Category 6 Business trips	0.4	Category 14 Franchise	Excluded*3		
Category 7 Employee commute	0.8	Category 15 Investment	Excluded*3		
Category 8 Lease assets (upstream)	-*1				

*1 Not calculated since included in Scope 1 and 2

*2 Not calculated since it is difficult to collect activity data as they are used by many consumers and for many purposes

*3 Excluded since target business is not conducted

*Target
Scope 1 and 2: Osaka Soda's business sites in Japan (calculated based on Act on Rationalizing Energy Use and Act on Promotion of Global Warming Countermeasures reports)
Scope 3 (category 1, 2, 4, 5): Osaka Soda's 5 plants (Kitakyushu, Amagasaki, Matsuyama, Mizushima, Okayama)
Scope 3 (category 3, 6, 7): Osaka Soda's business sites in Japan

* Emission intensity: As for emission coefficients used when calculating items, figures from IDEA Ver.3.3, or the Ministry of the Environment's Emission Intensity Database For Calculating GHG Emissions Throughout the Supply Chain V3.3 are used

Initiatives Related to Increased Energy Use Efficiency, Energy Conservation, and Clean Energy

< Target >

In addition to reducing CO₂ emissions, Osaka Soda is moving forward with reducing energy use and increasing energy use efficiency. Our goal is to increase the percentage of non-fossil electricity to 59% in fiscal 2030 in line with the revised Act on Rationalizing Energy Use.

< Introducing High-efficiency Equipment >

Osaka Soda is working to improve electricity consumption rate by increasing electrolyzer efficiency through modification of existing facilities. In fiscal 2022, we continued to work to improve electrolyzer efficiency at the Matsuyama Plant and introduced high-efficiency anodes at the Okayama Plant. In addition to carefully examining increasing the efficiency of electrolyzers, we will address the issue while taking into account their use and other factors. We are also working to reduce energy when updating aging facilities by adopting more efficient equipment.

< Promoting Energy Conservation Activities >

The Group conducts educational activities to increase knowledge and awareness through the energy conservation committees and RC committees at each business site. Furthermore, having set uncovering energy efficiency topics as an annual target, in fiscal 2022, we implemented several measures such as reducing steam use through the collection of waste heat and cutting electricity use through the

introduction of LEDs.

< Reducing Energy Consumption >

In addition to considering the introduction of high-efficiency equipment when updating facilities, Osaka Soda aims to reduce energy use by streamlining production processes and labor-saving measures, and reduce CO₂ emissions by utilizing clean energy. In fiscal 2022, energy use was about 225 thousand kL (crude oil equivalent), an increase of approximately 2.0% year on year. We will continue to strive to reduce energy use through the streamlining of production process.

< Utilizing Clean Energy >

As one of its alternate energy measures is to make use of hydrogen generated from soda electrolysis, Osaka Soda installed 5 hydrogen boilers. Fuel use was reduced about 6,900 kL (equivalent to 18,000 t-CO₂) on a crude oil equivalent basis in fiscal 2022 through the use of hydrogen boilers.



Hydrogen boiler (Matsuyama Plant)



City gas boilers (Amagasaki Plant)

Responsible Care Policies

< Environmental Preservation >

- (1) We will strive to reduce our environmental impact and curb global warming in harmony with the global environment.
- (2) We will promote energy and resource conservation, and make efforts to reduce waste and promote their effective use.

Reducing Environmental Impact

< Guidelines >

The guidelines on activities to reduce environment impact primarily concern RC implementation program (one part of RC activities) and being ISO14001 (environmental management system) certified.

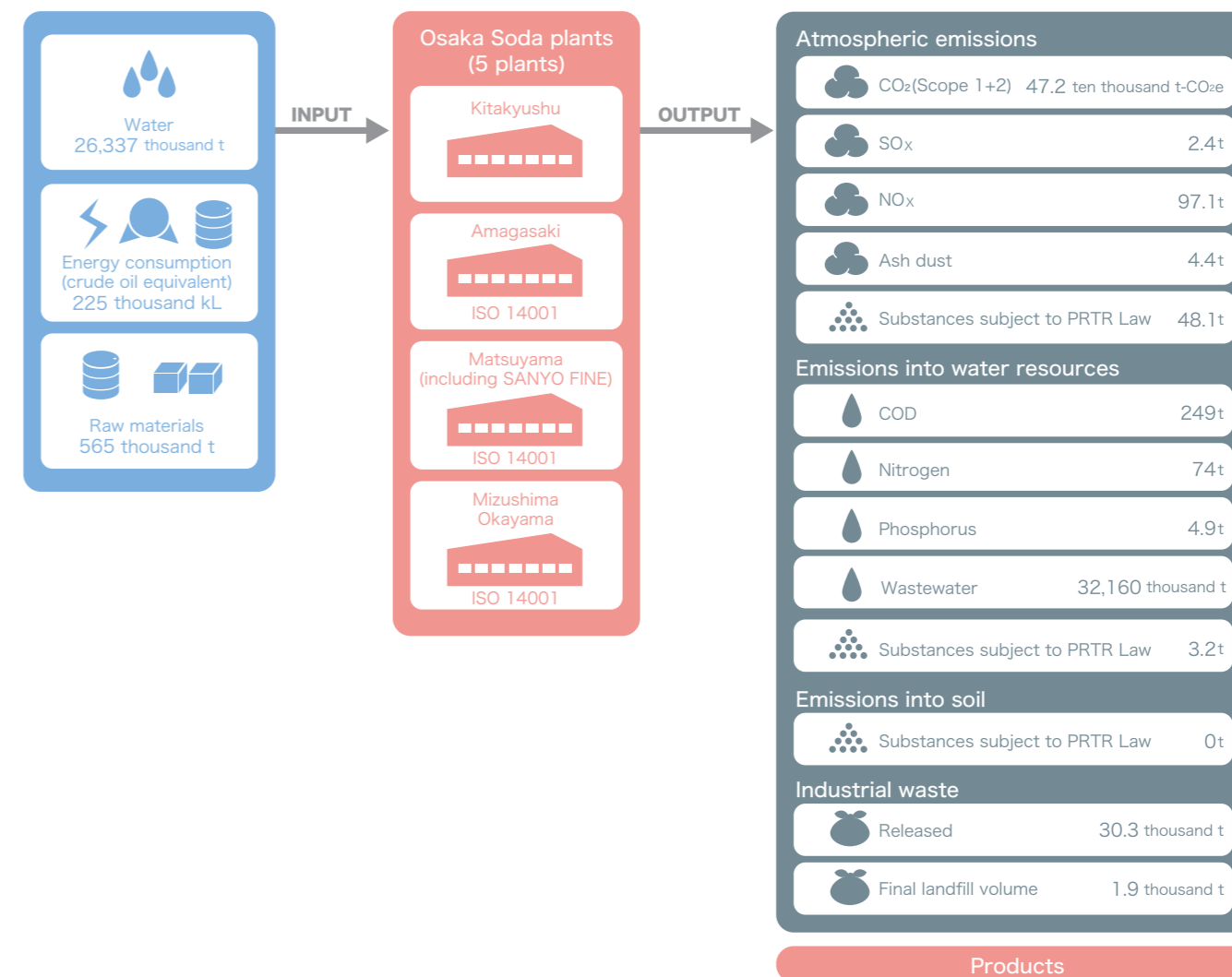
< Status of ISO14001 Certification By Business Site >

Osaka Soda is working to both promote its business and reduce the environmental impact of its business activities. The guidelines stipulate that core plants obtain ISO14001 certification, international standards on environmental management system, and make routine improvements.

Plant	Date of Certification	Certifier	Registration Number	Data renewed
Amagasaki Plant	May 2001	Japan Quality Assurance Organization	JQA-EM1558	April 2022
Matsuyama Plant	June 2001	Japan Quality Assurance Organization	JQA-EM1631	June 2022
Mizushima Plant	October 2000	Japan Quality Assurance Organization	JQA-EM1051	August 2021

Material Balance of Production Activities

The material balance resulting from our production activities during fiscal 2022 is shown below.

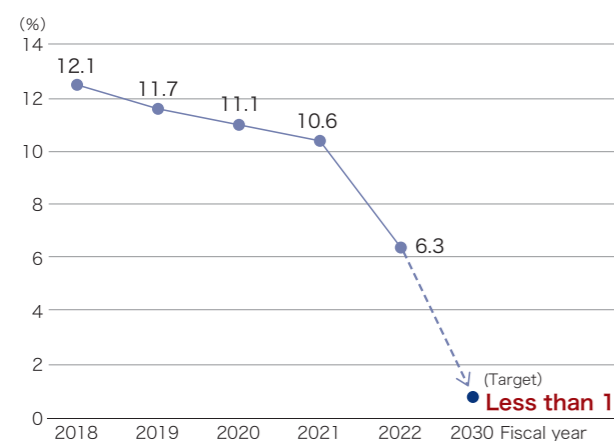


Waste Reduction and Effective Use of Resources (Cyclic Use)

< Reducing Industrial Waste Landfill Rate >

Under the basic policy of aiming to combine contributing to the realization of a sustainable society through our business activities with enhancing our corporate value, Osaka Soda has set a target of reducing the final landfill rate to less than 1% by fiscal 2030 by promoting the recycling and in-house reuse of waste materials. In fiscal 2022, the final landfill volume was 2,068 tons and the final landfill rate was 6.3%, a decrease of 4.3 points from the previous year by promoting recycling.

【 Final landfill rate 】



< Effective Use of Resources (Cyclic Use) >

The Group is working to make effective use of resources (cyclic use). Initiatives include reducing the final disposal rate by recycling industrial waste, employing steam generated using hydrogen created from soda electrolysis to heat the chemical plant, and using fuel derived from waste, RPF.

* RPF is an abbreviation of "Refuse derived Paper and Plastics densified Fuel." This refers to solid fuel made from used paper and waste plastics for which it is difficult to establish a material cycle.

< Recycling Ash Dust >

In cooperation with JMR CO., LTD., a Group company, Osaka Soda is working to increase our recycling rate by investigating and considering recycling sites for ash dust.

< Reducing Volume of and Recycling Brine Mud >

In fiscal 2022, Okayama Plant started to recycle brine mud generated from electrolysis. There are plans to steadily spread this initiative to other plants.

< Promoting In-house Reuse >

Osaka Soda reduces waste through its system that recovers hydrochloric acid and steam from hydrochloric acid production facilities and liquid waste combustion facilities, reusing these as resources and energy. These facilities use organochlorine compounds, by-products of our manufacturing processes. Osaka Soda is also engaged in the conversion of organic sludge generated from wastewater treatment into fertilizer, and the sorting, collection, and recycling of garbage.

< Initiatives to Prevent Atmospheric and Water Pollution >

Our 5 plants (Kitakyushu, Amagasaki, Matsuyama, Mizushima and Okayama), and the Matsuyama Plant of SANYO FINE CO., LTD. engage in production activities in the Seto Inland Sea and nearby waters, making wastewater management a key theme for preserving the beautiful environment of the Seto Inland Sea.

Osaka Soda has also concluded agreements on pollution prevention and environmental preservation with the local area, and Osaka Soda not only strives to comply with environment-related laws but also to prevent and reduce atmospheric and water pollution.

The environmental impact of our wastewater is primarily attributable to the emissions from processes for organic products, etc. (organic products, plastics, pharmaceutical intermediates, etc.), and Osaka Soda takes steps to reduce this impact.



Facility for recovery of valuable materials through thermal decomposition of wastewater (Matsuyama Plant)

Environmental (E)	Unit	FY2020	FY2021	FY2022
< Input > Energy use (total) *1	thousand kL	221	220	225
(energy intensity)		0.598	0.590	0.612
< Input > Water use *1	thousand t	19,752	23,400	26,337
< Output > CO ₂ emissions from business activities (Scope 1+2) *2	ten thousand t-CO ₂ e	48.7	49.0	47.2
CO ₂ emissions (Scope 1)	ten thousand t-CO ₂ e	8.2	8.9	7.9
CO ₂ emissions (Scope 2)	ten thousand t-CO ₂ e	40.5	40.2	39.3
< Output > CO ₂ emissions (Scope 3) *3,5	ten thousand t-CO ₂ e	—	—	40.1
< Output > GHG emissions (Scope 1+2+3) *5	ten thousand t-CO ₂ e	—	—	87.3
< Output > Atmospheric pollutant emissions *1				
SO _x (sulfur oxide)	t	3.8	3.0	2.4
NO _x (nitrogen oxide)	t	99.1	96.2	97.1
Ash dust	t	4.3	3.7	4.4
< Output > Wastewater (total) *1	thousand t	32,209	32,873	32,160
< Output > Water pollutant emissions *1				
COD load	t	279	281	249
Total nitrogen emissions	t	73	58	74
Total phosphorous emissions	t	4.9	5.3	4.9
< Output > Waste emissions				
Industrial waste volume *4	t	32,856	33,007	32,811
(of which is from Osaka Soda business sites in Japan)	t	30,038	30,578	30,345
Recycling rate *4	%	87	88	91
Final landfill volume *4	t	3,657	3,499	2,068
(of which is for Osaka Soda business sites in Japan)	t	3,424	3,323	1,905
Final landfill rate *4	%	11.1	10.6	6.3
< Output > Emissions of chemical substances subject to PRTR Law *1				
Atmospheric emissions	t	40.3	49.2	48.1
Emissions into water resources	t	3.1	3.2	3.2
Emissions into soil	t	0.0	0.0	0.0

*1 Osaka Soda's 5 main plants in Japan (including Sanyo Fine Matsuyama Plant)
 *2 Osaka Soda business sites in Japan (calculated based on Act on Rationalizing Energy Use and Act on Promotion of Global Warming Countermeasures reports)
 *3 Osaka Soda business sites in Japan (of which, Osaka Soda's 5 plants for some categories)
 *4 Osaka Soda business sites in Japan, Sanyo Fine (Fukui Plant and Kakogawa Plant), JMR
 *5 Disclosed starting with FY2022 figures

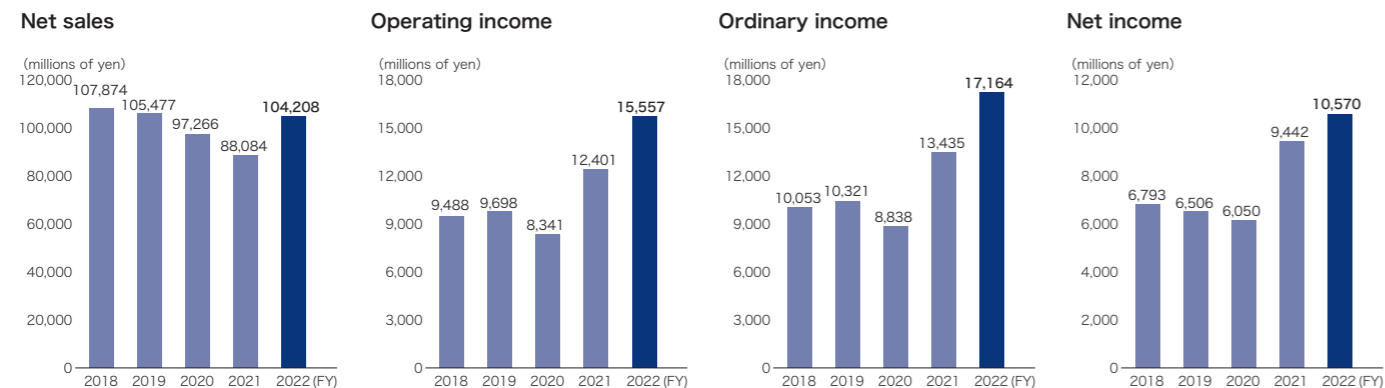
Social (S)	Unit	FY2020	FY2021	FY2022
Number of employees (consolidated)	People	993	991	1,017
Ratio of female employees (consolidated)	%	18.8	18.1	18.8
Ratio of female managers (consolidated) *1,3	%	—	—	6.3
Ratio of female managers (Osaka Soda only) *1,3	%	—	—	3.2
Ratio of female new graduates hired (consolidated) *2	%	—	21.4	31.3
Annual paid leave use ratio *4	%	68.6	72.1	75.8
Childcare leave use ratio for male employees (consolidated) *1	%	—	—	45.5
Childcare leave use ratio for male employees (Osaka Soda only) *1	%	—	—	35.7
Absences from work due to mental health issues *2,4	%	—	0.5	0.6
Checkup findings *2,4	%	—	32.0	32.3
Checkup findings, re-testing/detailed testing rate *2,4	%	—	40.7	39.4

*1 Disclosed starting with FY2022 figures
 *2 Disclosed starting with FY2021 figures
 *3 Managers include section chiefs
 *4 Aggregated based on employees of Osaka Soda (including those seconded to other entities)

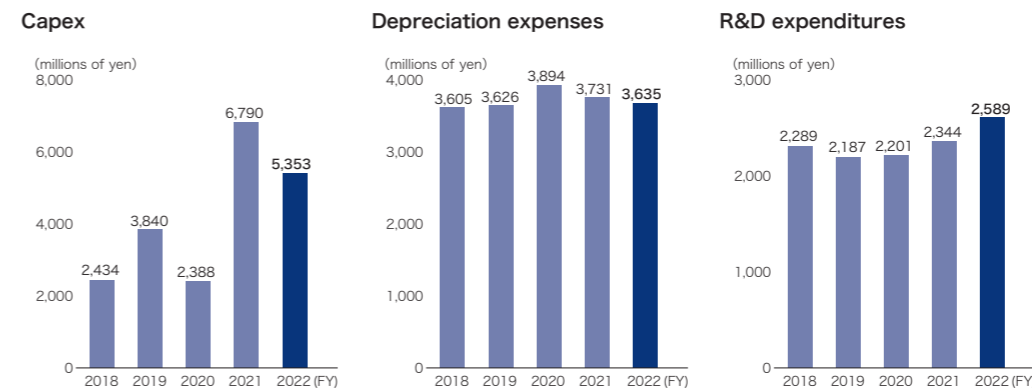
Governance (G)	Unit	FY2020	FY2021	FY2022
Board of Directors meetings	times	16	13	13
Board of Auditors meetings	times	13	12	11
Nomination and Compensation Committee meetings *1	times	—	2	8
Percentage of directors who are outside directors (as of March 31 of each year)	%	28.6	42.9	50.0

*1 Nomination and Compensation Committee was established on October 19, 2021

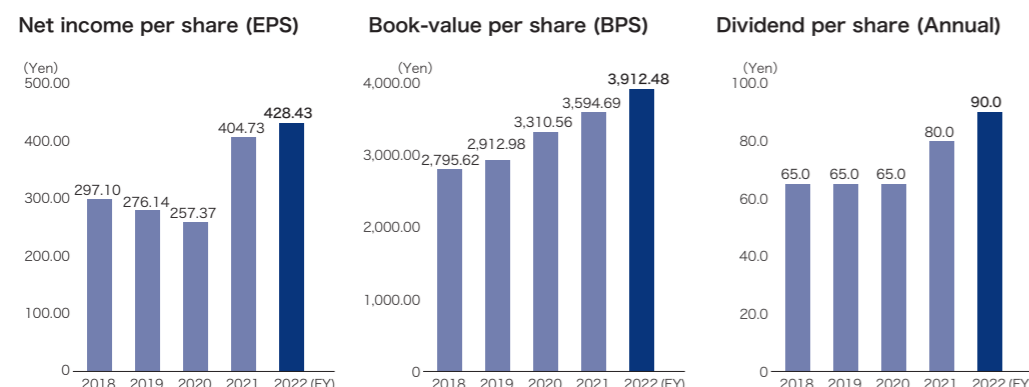
Business Performance



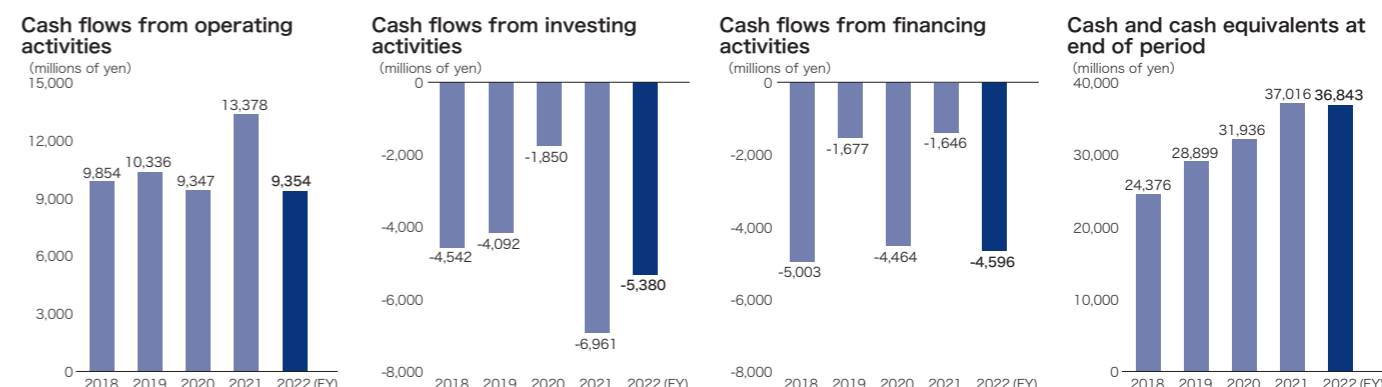
Financial Indicators



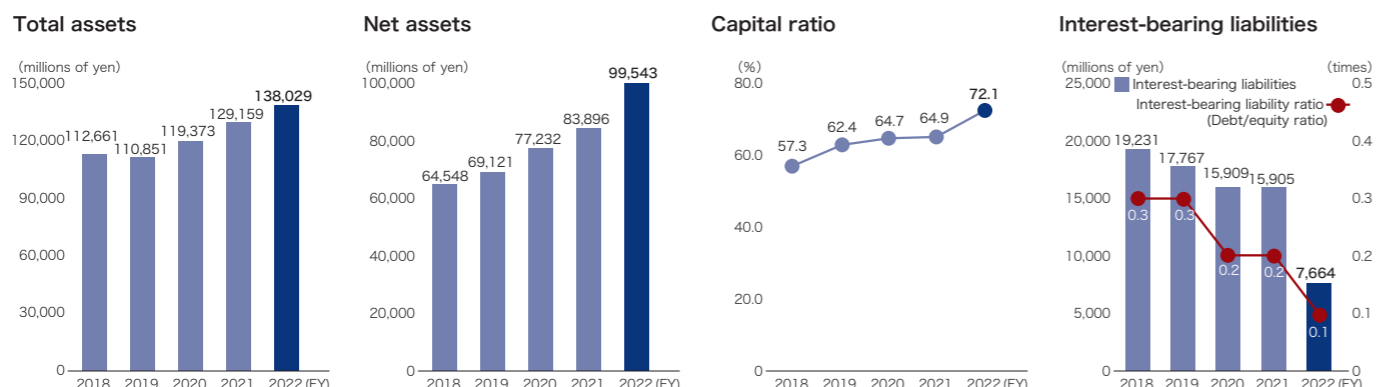
Per Share Data



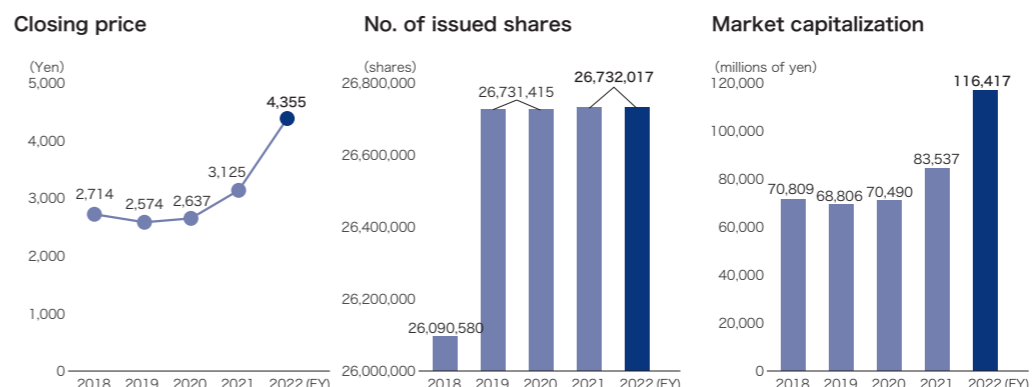
Cash Flow



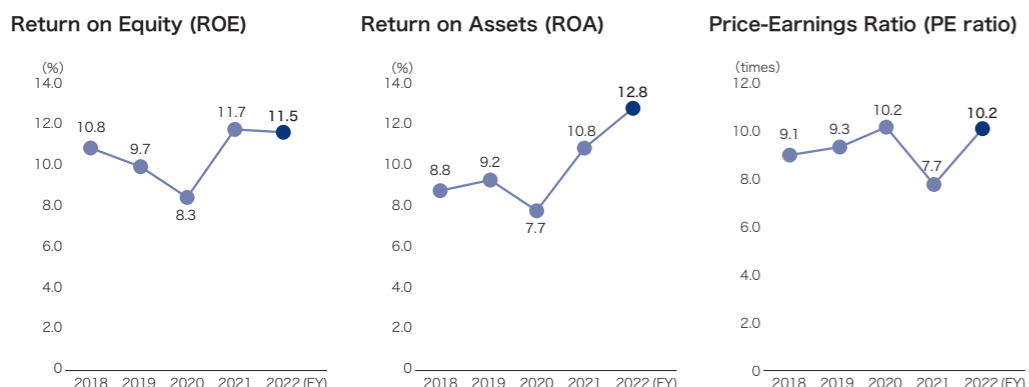
Assets / Liabilities



Share Data (fiscal year-end)



Financial Indicators



Compared to chemical sector companies listed on the TSE Prime Market (FY2022)

Item	Average for TSE Prime Market chemical sector companies*	Osaka Soda (ranking)
Net sales per employee (millions of yen)	54.8	103.8 (5th place)
Operating income per employee (millions of yen)	5.0	15.5 (6th place)
CF from operating activities per employee (millions of yen)	4.5	9.3 (15th place)

With net sales per employee exceeding 100 million yen and operating income per employee, exceeding 15 million yen, Osaka Soda boasts extremely high profitability compared to other companies in the same industry.

* Aggregated and processed for 137 companies in the chemical sector listed on the TSE Prime Market (as of August 31, 2023)

Corporate Information (As of March 31, 2023)

Company Name	OSAKA SODA CO., LTD.
Headquarters	1-12-18, Awaza, Nishi-ku, Osaka 550-0011, Japan
Establishment	October 26, 1915
Capital	¥15,871 million
Number of Employees	1,017 (Consolidated)

Listed on	TSE Prime Market (Securities code: 4046)
Independent Auditor	Ernst & Young ShinNihon LLC
Annual General Shareholders Meeting	June

Osaka Soda Group Network (as of March 31, 2023)

Main Offices

Headquarters	1-12-18, Awaza, Nishi-ku, Osaka 550-0011, Japan
Tokyo Branch	Palaceside Bldg. 8F, 1-1, Hitotsubashi 1-chome, Chiyoda-ku, Tokyo 100-0003, Japan
Chugoku-Shikoku Regional Office	2767-29, Kojima-Shionasu, Kurashiki, Okayama 711-0934, Japan
Kyushu Regional Office	Kamiyohakata Bldg. 4F, 1-2-5 Hakata-ekimae, Hakata-ku, Fukuoka 812-0011, Japan
Research Center	9, Otakasu-cho, Amagasaki, Hyogo 660-0842, Japan

Kitakyushu Plant/ 1-3, Kurosakishiroishi, Yahatanishi-ku, Kitakyushu, Fukuoka 806-0004, Japan

Amagasaki Plant/ 11, Otakasu-cho, Amagasaki, Hyogo 660-0842, Japan

Matsuyama Plant/ 77, Kitayoshida-cho, Matsuyama, Ehime 791-8525, Japan

Mizushima Plant/ 2767-13, Kojima-Shionasu, Kurashiki, Okayama 711-0934, Japan

Okayama Plant/ 2767-29, Kojima-Shionasu, Kurashiki, Okayama 711-0934, Japan

Group Companies in Japan

Company Name	Principal Business
DAISO CHEMICAL CO., LTD.	Sale of Chemical Products, Consumer Products
DAISO ENGINEERING CO., LTD.	Manufacture and Sale of Electrodes and Maintenance
SANYO FINE CO., LTD.	Manufacture and Sale of APIs and Intermediates
JMR CO., LTD.	Resource Recycling
DS LOGISTICS CO., LTD.	Shipping and Handling for Chemical Products
SANYO FINE IRICA TECHNOLOGY CO., LTD.	Manufacture of Column, Devices and other Analysis Equipment
DS WELLFOODS CO., LTD.	Manufacture, Processing and Sale of Health Food Materials
DAISO INSURANCE CO. LTD.	Sales of casualty insurance and life insurance
INB Planning Co., Ltd.	Manufacture and Sale of Rubber Products

Overseas Group Companies

Company Name	Principal Business
SANYO FINE TRADING CO., LTD.	Sale of Columns, Devices, and other Analysis Equipment
DAISO Fine Chem USA, Inc.	Manufacture and Sale of Pharmaceutical Purification Materials
DAISO Fine Chem GmbH	Sale of Pharmaceutical Purification Materials and Functional Chemicals
DAISO CHEMICAL(Shanghai) CO., LTD.	Importation and Exportation of Functional Chemicals, Electronic Materials, etc.
DAISO CHEMICAL(THAILAND) CO., LTD.	Importation and Exportation of Functional Chemicals, Electronic Materials, etc.
DestinHaus Capital Fund 1 LP	Investment Business
Elite Advanced Polymers, Inc.	Manufacture and Sale of Rubber Products

Stock Information (as of March 31, 2023)

Stock Information

Total number of shares authorized to be issued: 60,000,000 shares

Total number of shares issued: 26,732,017 shares

Number of shareholders: 5,276

Major Shareholders (top ten)

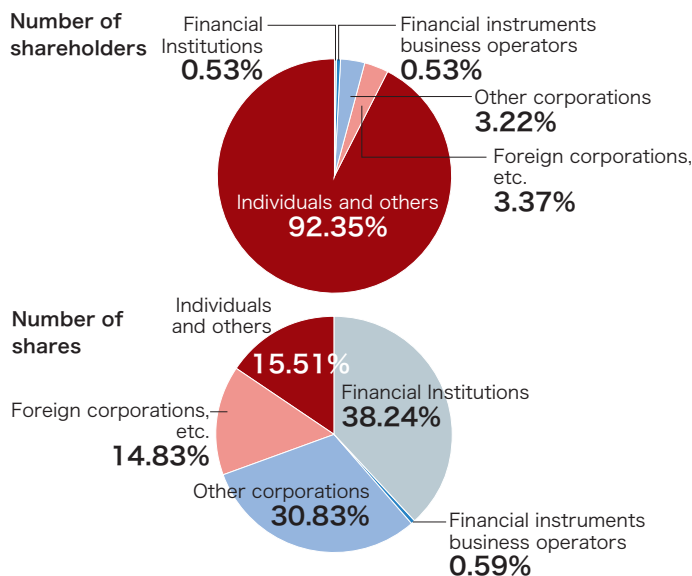
Name of Shareholder	Shareholding (1,000 shares)	Shareholding Ratio (%)
The Master Trust Bank of Japan, Ltd.(Trust Account)	3,342	13.13
Custody Bank of Japan, Ltd.(Trust Account)	1,748	6.87
MUFG Bank, Ltd.	876	3.44
THE BANK OF FUKUOKA, LTD.	822	3.23
THE IYO BANK, Ltd.	748	2.94
TEIJIN LIMITED	678	2.66
Mizuho Bank, Ltd. (MHBK)	669	2.63
Nippon Life Insurance Company	637	2.50
Sompo Japan Insurance Inc.	615	2.41
Stock Holding Union of OSAKA SODA's Business Partners	615	2.41

Note: Shareholding ratio is calculated by deducting treasury stock (1,291,509 shares) from total number of shares issued.

Shareholder Registry Administrator

Mitsubishi UFJ Trust and Banking Corporation 4-5, Marunouchi 1-Chome, Chiyoda-ku, Tokyo 100-8212, Japan

Shareholders Distribution



Note: The Company's shareholding ratio (4.83%) of treasury stock is included in "Individuals and others."



OSAKA SODA CO., LTD.

12-18, Awaza 1-chome, Nishi-ku, Osaka 550-0011, Japan

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