

Responsible Chemicals Management

Kao believes that it is important for people around the world to enjoy the benefits provided by chemicals and to have safety and peace of mind in society with the proper management of the risks of chemicals. Through its ESG (environmental, social, and governance) initiatives, Kao will take the lead in responsible chemicals management to help realize a sustainable world.

Social issues

Chemicals foster our lifestyles and are essential to strive for the wholehearted satisfaction and enrichment of the lives of people globally. On the other hand, chemicals could have a negative impact on human health and the environment.

Chemical pollution is said to be a risk factor for global environmental destruction, human health damage, and ecosystem degradation and is regarded as one element of the triple planetary crisis (the other two threats are climate change and biodiversity loss) (UNEP, 2023)*¹. The international goal on chemicals management toward 2020 was not achieved; therefore, the participation of a wide range of relevant stakeholders and ambitious and concrete actions for chemicals management are required. In September 2023, a successor framework was adopted under the United Nations Environment Programme (UNEP, 2023)*². It confirmed that the growth of the chemical industry will accelerate, meaning that proper management of chemicals and waste is essential to achieve SDGs, and promised that the triple planetary crisis will be comprehensively addressed, and that all stakeholders and sectors will strengthen the coordination and cooperation efforts at all levels (UNEP, 2023)*¹.

*1 High-level declaration on the Global Framework on Chemicals
<https://www.chemicalsframework.org/bonndeclaration>


*2 Adoption of the Global Framework on Chemicals after 2020
<https://www.chemicalsframework.org/page/text-global-framework-chemicals>

Policies

Kao considers responsible chemicals management as one of the Kao Actions in our ESG strategy.

We believe in a safe society where people around the world can enjoy the benefits provided by chemicals with peace of mind. To that end, the risks associated with chemicals should be properly managed. Through our ESG initiatives, we want to take the lead in responsible chemicals management to help actualize such a society.

This policy is published on the following website.

 **Responsible Chemicals Management Promotion Policy**
<https://www.kao.com/global/en/innovation/safety-quality/saicm/saicm-policy/>

P43 Our ESG Vision and Strategy > Metrics and Targets

Strategy

Risks and opportunities

Risks

As mentioned above, the United Nations has issued warnings related to the triple planetary crisis, i.e., climate change, biodiversity loss, pollution from chemicals and waste. Because they are mutually related and affected, Kao thinks that comprehensive considerations on climate change and biodiversity loss should be required when we deal with risks in the field of chemicals management. Moreover, the Chemical Strategy for Sustainability (CSS) under the European

Risk factors and risks for Kao

	Item	Risks for Kao
Environmental changes	Climate change (increased natural disasters due to temperature rises, increase in energy costs, etc.) and biodiversity loss	Suspension of plant operation
		Division of the supply chain
		Rising raw materials prices
Policies, laws and regulations	Introduction of environmental taxes such as a carbon tax	Lack/unavailability of naturally derived materials
		Increase in the price of petrochemical raw materials
	Development of a recycling system/requirement and obligation for environment monitoring	Burden of expenses for system architecture, monitoring, etc.
		Strengthening hazard-based chemical regulations
Markets	Inconsistency among global regulations	Response to regulations that differ among EU countries, other developed countries, and developing countries
	Increasing environmental awareness/ethical preferences of consumers	Loss of brand value and decline in the share
	Growing demands from external ratings firms and investors	Loss of corporate value due to lack of information disclosure
Reputation	Reputation of specific chemicals / Reputation of companies, as greenwashing companies	Growing demand from distributors
		Decline in sales due to reduced transaction volume
		Loss of opportunities to sell products
		Decrease in brand value/corporate value
		Litigation risks

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Green Deal might also have a major effect on our strategy. If the rate of such environmental changes increases and regulations are strengthened, markets and consumer awareness will also change accordingly, which can be risk factors. From a comprehensive perspective, with the above issues in mind, Kao attempted to extract risks from its chemicals management. The results are shown in the table on the previous page.

Opportunities

Promoting responsible chemicals management, taking measures against expected impacts and risks in advance, and maximizing the benefits of chemicals should provide opportunities to avoid risks, including climate change and biodiversity loss, and help to achieve a sustainable world. This will also help us earn the trust of society and enable our business to grow.

Strategy

We tried to formulate resilient corporate strategies in response to identified risks and opportunities through a scenario analysis.

Scenario analysis trial in chemicals management

In the fields of climate change and biodiversity loss, scenario analyses based on the framework of TCFD^{*1} and TNFD^{*2}, respectively, have already been launched. By attempting a scenario analysis based on these pioneering examples, we have examined the extent to which risks and opportunities for Kao in the field of chemicals management will generate impacts under the assumed scenario and what strategies will be effective to make us resilient, especially with respect to risks.

*1 TCFD: Task Force on Climate-related Financial Disclosures

*2 TNFD: Task Force on Nature-related Financial Disclosures

P114 Decarbonization > Strategy > Business impact > Estimation of business impacts by 2030

Although we have not yet established such a framework in the field of chemicals management, we created a scenario by using TCFD, TNFD, and SSP^{*3} scenarios as a reference and attempted an analysis based on it.

*3 SSP scenario: Shared Socioeconomic Pathways. A scenario to assess the effect of climate change, which has been developed in collaboration with the National Institute for Environmental Studies, Pacific Northwest National Laboratory, Plan Bureau voor de Leefomgeving, International Institute for Applied Systems Analysis, and Potsdam Institute for Climate Impact Research

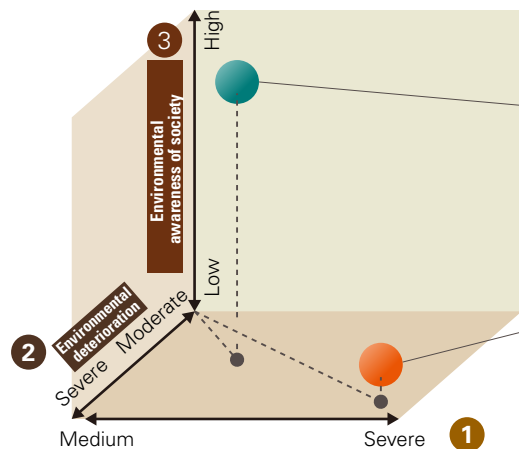
As the previous table shows, a wide range of factors affect risk and contain uncertainty. Emerged risks should vary greatly according to external circumstances and factors such as environments, regulations, and societies. For this reason, we decided to select multiple factors in external environments that are likely to be important from a medium-term perspective—instead of narrowing down to one factor or scenario—draw up multiple scenarios based on the difference in the change in those factors, and examine the scenarios.

As important factors for creating scenarios, we identified the progress in chemical regulations (level of introduced regulations and global spread), the degree of deterioration of the global environment, and the level of increase in society's environmental awareness. We created two scenarios that are at opposite ends in a three-dimensional space with these three factors as its axes, as shown in the figure on the next page. We call these two scenarios scenario A and scenario B. We believe that, in the uncertain future, a strategy devised

after setting diametrical scenarios and examining the impact of risks will be effective for future changes in the external environment and will lead to Kao becoming resilient.

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Elements of the scenarios and assumed scenarios



Scenario A

- Chemical regulations vary geographically
- Social awareness of sustainability is high and company activities are strictly scrutinized
- Climate change and biodiversity loss are suppressed to a certain level

Scenario B

- Chemical regulations on a hazard basis have spread globally
- Social awareness of sustainability is low and environmental deterioration is progressing
- Naturally derived resources are depleted due to abnormal weather and natural disasters, and supply chain disruptions are occurring

Progress in chemical regulations (level of introduced regulations and global spread)

Next, we estimated the probability of the risks for Kao (which were extracted earlier as shown in the table above) actually occurring in each scenario. We then examined what strategies would be effective when those risks actually occur in each scenario. The results are shown in the table below.

In scenario B, which assumes severe global chemical regulations and environmental deterioration, we judged that the development of products and processes that can contribute to the reduction of environmental impact, stable operations, including stable raw material procurement, and realization of zero accidents due to chemicals, would be important.

In scenario A, which assumes the development of chemical regulations that differ globally and increased awareness by stakeholders, we believe it is important

Scenario analysis

(Estimation of the risk probability and effective strategies in each scenario)

Item	Risks for Kao	Influence in each scenario	
		Scenario A	Scenario B
		Regulations differing globally / Enhanced social awareness	Severe regulations / Environmental deterioration
Environmental changes	Suspension of plant operation	M	VH
	Division of the supply chain	M	VH
	Rising raw materials prices	H	VH
	Lack/unavailability of naturally derived materials	M	H
Policies, laws and regulations	Introduction of environmental taxes such as a carbon tax	M	VH
	Development of a recycling system/requirement and obligation for environment monitoring	M	H
	Strengthening hazard-based chemical regulations	H	VH
	Inconsistency among global regulations	VH	L
Markets	Increasing environmental awareness/ethical preferences of consumers	VH	L
	Growing demands from external ratings firms and investors	VH	M
	Growing demand from distributors	VH	M
Reputation	Reputation of specific chemicals / Reputation of companies as greenwashing companies	H	M
	Loss of opportunities to sell products	VH	M
	Decrease in brand value/corporate value	VH	M
	Litigation risks	H	H

Effective strategies in each scenario

Scenario B

- Develop products and processes with reduced environmental impact
- Realize stable operations and zero chemical accident

Scenario A

- Appropriate risk assessments, keeping up with trends of chemical regulations, and strategic use of chemicals
- Earn trust from society through effective communication

(VH: Very heavy, H: Heavy, M: Medium, L: Light)

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to strategically use chemicals based on appropriate risk assessments and to keep up with trends in chemical regulations. We also think we will need to improve transparency and enhance communication so we can gain stakeholders' trust.

Based on the strategies extracted from such a scenario analysis, we decided to implement our efforts voluntarily and more strategically with a focus on the following three activities we have been engaging in.

(1) Develop products and processes with reduced environmental impact

- Minimize environmental impact throughout the product life cycle

(2) Use management systems*1 to optimize risk assessment methods, assess risks, and strengthen risk management

- Optimize risk assessment methods for efficient chemicals management
- Foster community safety and peace of mind by having zero chemical accidents

*1 Chemical information, safety information, legal information, volume and application information, etc.

(3) Proactively disclose benefits, safety and our actions, and continuously engage in dialogue

- Make information on chemicals' benefits and safety available in an accessible and easy-to-understand way
- Effectively communicate with all people around the world to earn trust

As a result of our approach to examining scenarios using a wide range of factors, we were able to derive strategies with important future "amplitude" in mind

with a multilateral approach. Accordingly, we launched Kao's resilient actions against various risks in the field of chemicals management.

Social impact

Chemicals management is deeply related to various social and environmental issues, such as resource depletion, climate change, biodiversity loss, water shortage, air and water pollution, plastic and waste problems, misinformation, and the provision of false information. By further strengthening our cooperation with the industry, government and academia and sharing the activities regarding chemicals management initiatives in collaboration with society, including risk assessment, we will contribute to ensuring the safety and peace of mind of people and solving various social problems, including environmental problems, based on our policies and strategies.

Contributions to the SDGs



Business impact

Kao will realize sustainable business growth by continuously releasing products that have minimal environmental impact throughout their entire lifecycle, from raw material procurement to disposal and recycling.

By disclosing information on chemical substances to a wide range of stakeholders, i.e., consumers, customers, employees, distributors, administrative bodies and others, and by promoting effective communication with that information, we can improve the understanding of chemicals and products containing them and promote proper handling methods. This is expected to build trust, in addition to ensuring safety and peace of mind for society, thereby enabling our business to grow.

Governance

Framework

Kao considers chemicals management to be one of the key issues to tackle in our ESG strategy. We have established the Chemical Stewardship Steering Committee as a subordinate unit of the ESG Managing Committee to more promptly reflect the decisions made by the ESG Managing Committee on responsible chemicals management promotion activities and business activities.

The SAICM Promotion Committee is taking the lead in promoting voluntary chemicals management throughout the product lifecycle under major policies formulated by the Chemical Stewardship Steering Committee.

The SAICM Promotion Committee is chaired by the Executive Officer, and the members are elected from key divisions. Proposed initiatives are reflected in the day-to-day operations of individual divisions. The Committee ensures that its decisions are reported at the ESG Managing Committee, the Management Board, or the Executive Officers Meeting through the Chemical

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Stewardship Steering Committee at least once a year to maintain a sound decision-making process.

The Committee has established five teams*1 to promote strategic initiatives. In addition to meetings of individual teams, the SAICM Promotion Committee meets four times a year to conduct planning, receive progress reports, review projects, propose and discuss new issues, and holds lectures by outside experts.

The Kao SAICM Expert Advisory Panel consists of the Chairperson of the SAICM Promotion Committee and outside experts, and Kao continues to pursue the true value of the initiatives by receiving suggestions and advice from the Panel on the concept of and methods for responsible chemicals management. In 2023, we invited a communication expert in order to reflect external perspectives in the structure and reinforced it.

*1 Minimize environmental impact, optimize risk assessment, achieve zero accidents to create safety and a sense of trust in local communities, disclose information concerning benefits and safety, and communicate for trust

P25 Our ESG Vision and Strategy > Governance

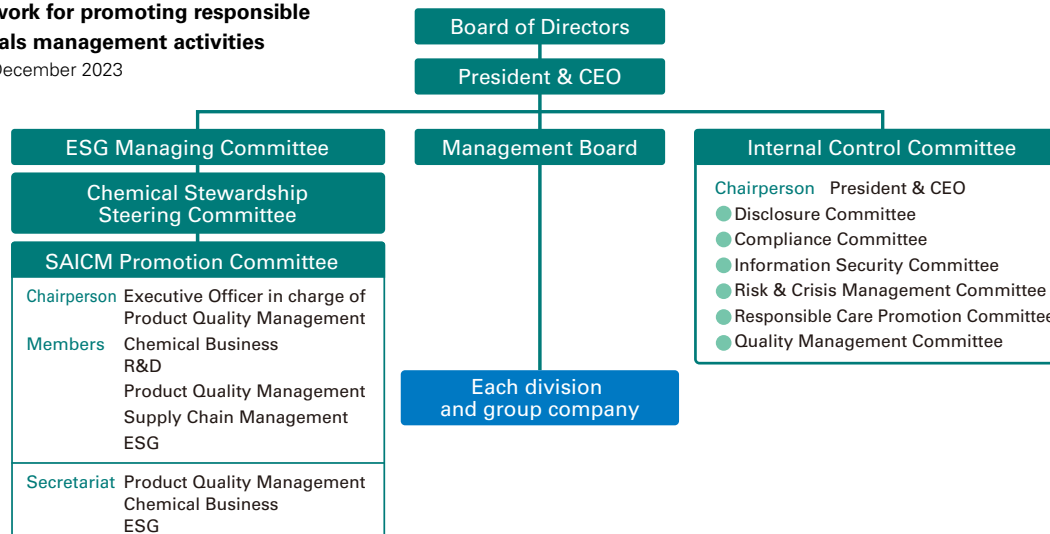
Comprehensive Management System for Chemical Substances

In addition to strengthening the chemicals management framework, Kao has developed and is operating the Kao Comprehensive Management System for Chemical Substances as a support tool.

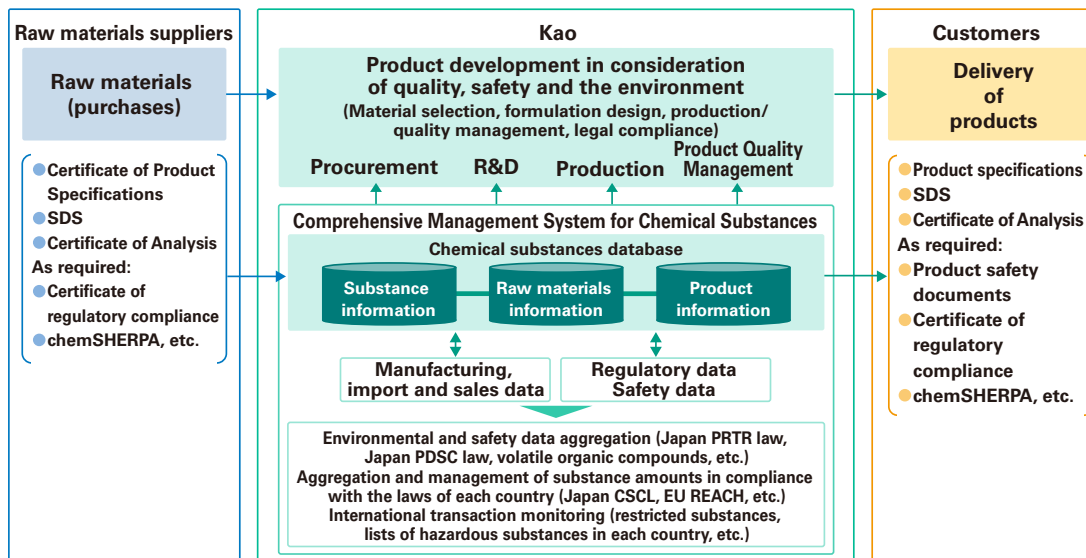
We create a database of information on raw materials, and the chemical substances contained in this system, as well as managing information on safety and regulations. This system ensures traceability. For example, once a problem with a raw material arises, this system enables us to quickly identify the impact on our business and to establish appropriate actions.

Framework for promoting responsible chemicals management activities

* As of December 2023



Comprehensive Management System for Chemical Substances



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We will continue improving the system and enhancing its functions to keep up with global trends in laws and regulations related to chemical substances and changes in the business environment.

Education and promotion

To raise awareness of chemicals management and deepen correct understanding, we continuously provide education for employees, including lectures by outside experts. For example, we provide briefing sessions on chemical regulations and laws for employees who need to handle chemicals, provide training on the risks and harms of chemicals at manufacturing sites and regular lectures by external experts every year.

Collaboration with stakeholders

Mutual understanding is essential for stakeholders, including consumers, on the benefits of proper use of chemicals that will lead them to lives with peace of mind. We share information on chemical risks with stakeholders to reach a common understanding (risk communication), and ensure community safety and trust via communication.

We also cooperate with academic societies and other experts engaged in chemicals management.

Collaboration and communication with consumers

We engage in continuous communication relating to chemical risks so that products can be used safely and with peace of mind.

Collaboration with customers and distributors

Various information is transferred through the supply chain from upstream to downstream to ensure all the

relevant business partners appropriately handle chemicals complying with chemical regulations within and outside Japan. Kao also works with its customers and distributors to efficiently communicate and manage information.

Collaboration with administrative bodies

We continuously engage in dialogue and cooperate with administrative bodies within and outside Japan to earn more trust with regulatory authorities involved with chemicals management and promote more appropriate chemicals management as a company that handles them.

Collaboration with industry organizations

We participate in various activities to contribute to chemicals management in industries.

Risk management

We identify issues related to chemicals that are occurring or are likely to occur in the respective fields of science, regulation, and society worldwide. With the SAICM Promotion Committee taking the central role, we organize risks and opportunities and prioritize important issues while appreciating the views of third parties. For example, we continuously implement the PDCA (Plan, Do, Check, and Act) cycle at *Genba* where chemicals are handled, with the aim of having zero accidents.

These initiatives are regularly reported to the ESG Managing Committee through the Chemical Stewardship Steering Committee.

The activities mentioned above also contribute to ensuring business opportunities and avoiding reputational risk.

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Our ESG Vision and Strategy > Risk management

Metrics and targets

Mid- to long-term targets and 2023 results

Mid- to long-term targets

As our interim long-term targets for 2030, we set the Mid-term Plan 2025 (K25) to make Kao a company with a global presence that is valuable to society, and K27 to make it a company that runs a *Global Sharp Top* business. Measures to solve global environmental issues will be essential to meet the first target, “become an essential company in a sustainable world.” With “walking the right path” as the starting point for our activities, we set the following targets to be achieved by 2030 in order to develop our business activities in a sustainable manner by implementing responsible chemicals management.

(1) Develop products and processes with reduced environmental impact

We will contribute to the creation of a sustainable world by proposing to society the development and manufacture of products that minimize the environmental impact of chemicals in all stages of the product lifecycle, from raw material procurement to development, manufacturing, sales, use, disposal, and recycling and by promoting the implementation of such activities in collaboration with society.

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(Company goal: To contribute to a 22% reduction in lifecycle CO₂ emissions in 2030 (base year 2017) and 80% as the sustainable chemicals rate in 2024)

(2) Use management systems to optimize risk assessment methods, assess risks, and strengthen risk management

We will develop optimal chemical risk assessment methods, use management systems, and promote the reinforcement of actual risk assessment and management. We will strive to achieve zero accidents at plants to ensure safety and foster a sense of trust in local communities. In addition, we will share the research results of optimization of risk assessment methods and assessment results with society to contribute to the appropriate and efficient management of chemical risk throughout society.

(Evaluation of Kao's chemicals for priority risk assessment: 100% of the goal for 2030, Implementation of risk assessment using the non-animal assessment method: Aiming for one category every year)

(3) Proactively disclose benefits, safety and our actions, and continuously engage in dialogue

We will foster the trust and confidence of society related to chemicals by providing accurate and easy-to-understand information on chemicals and our specific initiatives and by conducting ongoing communications with stakeholders.

We formulated and announced indicators (KPIs) regarding this approach in 2020.

KPI 1: Percentage of chemical products and raw materials with disclosed information on benefits and safety to ensure safe usage for our customers (Target 100% (2030))

We select chemical substances for disclosure based on their impact on people and the environment and their importance in Kao's corporate activities.

KPI 2: Percentage of areas where the impacts on health, environment, and safety from chemicals are managed responsibly and sustainably while considering their stages from raw materials procurement to disposal (Target 100% (annually))

The requirements for management vary with changes in society and the environment. We work to minimize the impact with the best realistic and available solutions for each case.

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2023 results

We conducted activities in line with the plan for 2023. We are continuing our efforts to minimize the risk from chemicals through product and process development, safety assessments and *Genba* risk management, and to earn the public trust and peace of mind regarding chemicals through dialogue including information disclosure.

(1) Develop products and processes with reduced environmental impact

- Developed products that contribute to improving the use of sustainable raw materials, reducing LC-CO₂, conserving water, and reducing waste.
- Continued the development of environmental impact-reducing products/processes and received four awards (GSC^{*1} Environment Minister's Award, GSC Poster Award, 50th Environmental Award, CESIO^{*2} Technology Award)
- Formulated policies for using ingredients that attract a high level of concern from a regulatory and social perspective, and

created a plan for reducing the use of such ingredients, by applying the information in the Comprehensive Management System for Chemical Substances.

(2) Use management systems to optimize risk assessment methods, assess risks, and strengthen risk management

- Evaluated Kao priority assessment substances (2 categories)
- Made presentations at academic conferences and submitted papers on safety evaluation techniques that do not use animals (e.g., presentation at the Japanese Society of Toxicology (JSOT) and winning the Poster Award from the Japanese Society for Alternative to Animal Experiments), and currently making striving to meet OECD test guidelines.
- Upon adoption of the international framework (UNEP 2022) regarding biodiversity, gained an understanding of risks and opportunities relating to biodiversity caused by chemicals and clarified what actions to take.
- Gained an understanding of the impact of chemicals management based on the TCFD on climate change (scenario analysis in the previous section).
- Continued to build a system for centralized management of environmental, health and safety information relating to chemicals in order to reinforce risk management of chemicals handled at Kao plants.

*1 GSC: Green and Sustainable Chemistry

*2 CESIO: European Committee of Organic Surfactants and their Intermediates

KPI: Percentage of areas where the impacts on health, environment, and safety from chemicals are managed responsibly and sustainably while considering their stages from raw materials procurement to disposal

We continued to manage impacts on the environment, health and safety at business sites (GHS indication, SDS updates, and risk assessments), while taking into consideration stages from raw materials procurements to disposal: 93% of Kao plants.

Responsible Chemicals Management GRI 413-1

(3) Proactively disclose benefits, safety and our actions, and continuously dialogue

- Created interactive content that supports dialogue regarding chemicals with stakeholders, and conducted verification.
- Promoted understanding of Kao's corporate activities through dialogue and confirmed awareness and behavior changes with respect to chemicals.
- Engaged in continuous communication relating to chemical risks for medical students and professors as stakeholders.
- Continuously explored content improvement and dialogue methods based on consumers' thoughts and their backgrounds in order to resolve questions and concerns about chemicals.
- Promoted communication activities relating to chemical risks to secure the safety and peace of mind of the community through symbiotic relationships between Kao plants and communities.
- Held dialogues with industry associations and administrative bodies both within and outside Japan ahead of the adoption of Global Framework on Chemicals in reaction to unachieved 2020 international goals for chemicals management, and held a series of discussions about the future direction after adoption (12 times in total).

KPI: Percentage of chemical products and raw materials with disclosed information on benefits and safety to ensure safe usage for our customers

We released two safety summaries on Kao priority assessment substances evaluated in 2021 (the release rate was 38% of the target through 2030) and 12 GPS Safety Summaries for chemical products.



Two categories: Alcohol ethoxylate and ethylenediaminetetraacetic acid
https://chemical.kao.com/global/sustainability/saicm/article_05/

Kao Receives JCIA's "JIPS Award" for the Seventh Consecutive Year for Its Chemical-Related Initiatives
https://www.nikkakyo.org/basic/page/JIPS_award.html

- Disclosed our policies relating to ingredients of high social concern and fragrance ingredient names

P72 Safer Healthier Products

P180 Full Transparency

In the above efforts, we applied the Comprehensive Management System for Chemical Substances and endeavored to manage and disclose information on the results of safety evaluations, volume management, regulations, and substances of high social concern.

Reviews of 2023 results

We implemented the 2023 plans, including two KPIs, to realize the 2030 mid- to long-term targets. In particular, the adoption of Global Framework on Chemicals in reaction to unachieved 2020 international goals for chemicals management and regulatory reforms based on the EU CSS is expected to have a global impact. Therefore, we worked to minimize the business impact on Kao and maximize the opportunity for business growth by engaging in dialogue with industry associations and administrative bodies, both within and outside Japan, and responding to public consultations in order to ensure that the regulations would be more appropriate.

We will contribute to the development of a sustainable world by comprehensively working on problem-solving through the fusion of individual activities and collaboration with society.

Main initiatives

We made ongoing efforts to communicate with a variety of stakeholders regarding chemicals as follows:

Collaboration and communication with consumers **Collaboration with university courses**

- We cooperated with the Environmental Health group in the Hygiene and Public Health Practice at Teikyo University's School of Medicine.
- We cooperated with Risk Society and Communication, a course at the Center for Creation of a Symbiotic Society with Risk, Yokohama National University.
Through these collaborations, we also examined methods of dialogue for clearing people's fears about chemicals and prompting awareness and behavioral change with respect to chemicals.



Hygiene and Public Health Practice, Teikyo University School of Medicine
<http://www.med.teikyo-u.ac.jp/~hph/education.html>

Cooperated with Risk Society and Communication, a course at the Center for Creation of a Symbiotic Society with Risk, Yokohama National University
<https://www.kao.com/jp/newsroom/news/topics/2023/sustainability-20230726-001/>

Communication with local residents

With the aim of minimizing the impact of chemical leaks from the Kao plant and of explosions there, we held regular dialogues and joint training with the Wakayama City Fire Department, so that neighborhood residents can live with security and peace of mind.



Kao Wakayama Plant—Joint Training with Wakayama City Fire Department
<http://www.city.wakayama.wakayama.jp/syoubou/news2/1008541/1050921.html>

Responsible Chemicals Management GRI 413-1, 417-1

Collaboration with customers and distributors **Providing information on chemicals in products**

To provide regulatory information on chemical substances contained in our industrial products and other information, we communicated efficiently with the supply chain by utilizing chemSHERPA-CI*¹, an industry-wide communication format, and continued to provide the latest information by updating the information twice a year.

*1 chemSHERPA-CI

Data entry support tool and output format for communicating information on specified chemical substances

GHS-compliant SDS*² and product labeling

We issued SDSs and product labels that comply with the GHS rules of each country and region and revised them so that industrial products can be used properly in accordance with laws and regulations at the local, national and regional levels.

In Japan, we completed the revision of SDSs corresponding to the revision of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof in 2023 by its implementation date, and provided the revised SDSs to customers.

*2 SDS

Safety Data Sheet

A document providing information to ensure safe and appropriate handling of chemicals, such as names of substances contained in the product, information about potential hazards and handling precautions.

Information provision and sharing via a private network

We utilized a private network with industrial product distributors to provide information online, such as on

SDSs and chemSHERPA-CI, and continuously encouraged chemicals management throughout the supply chain. In July, we held an online biennial training session for new employees at distributors and provided explanations on chemicals management. For main distributors, we also held individual online and in-person information exchange meetings on comprehensive safety management in December. In addition to explaining the latest legal and regulatory trends, we asked for understanding of and cooperation with Kao's initiatives in chemicals management.

Collaboration with administrative bodies

We held six meetings with government agencies to exchange information so that we could earn more trust with regulatory authorities and promote more sound chemicals management as a company that handles chemicals.

Themes: Post-SAICM, Regulatory science, Innovation, Mutual authentication for reliability assurance, Product safety, EU Chemical Strategy for Sustainability (EU CSS)

Moreover, we adjusted and promoted the exchange of opinions with administrative bodies and industry associations for the adoption of Global Framework on Chemicals after 2020, informed large numbers of relevant stakeholders in Japan of the information and promoted partnerships after the adoption through lectures.



NITE (National Institute of Technology and Evaluation)
NITE course (Chemicals Management)
<https://www.nite.go.jp/data/000152323.pdf>
<https://www.nite.go.jp/data/000152357.pdf>

Collaboration with industry organizations

In accordance with the EU CSS, a variety of public consultations to revise REACH and CLP regulations were conducted in 2023. We worked to collect information to minimize the future impact on our business and communicated with administrative bodies through industry groups, where we play important roles, for rational legislation.

In addition, we led discussions in each industry association ahead of the Global Framework on Chemicals, which was adopted in reaction to unachieved 2020 international goals for chemicals management. Furthermore, we made efforts to increase awareness of the value of chemicals management and earn the trust of society by transmitting initiatives of Kao as a company in the industry through industry associations' PR magazines and annual reports.



Japan Soap and Detergent Association (JSDA)
CLEAN AGE 273
https://jsda.org/w/06_clage/4clean_273-2.html

Environment Annual Report Vol. 48
https://jsda.org/w/00_jsda/9_Annual-Report/Environmental-Annual-Report_Vol.48_2023.pdf

Chemicals and Environment No. 178 (March 2023) (Organization for Research and Communication on Environmental Risks of Chemicals)
<http://ecochemi.jp/mokujii151-200.html>

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Stakeholder engagement



Kazuo Matsushita

Professor Emeritus, Kyoto University

The year 2023 was the hottest year on record. U.N. Secretary-General Guterres warned that the era of global warming has ended and the era of global boiling has arrived. At the 28th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP28), it was agreed that what was needed was not only decarbonization but also tripling the renewable energy capacity globally and doubling the world's average annual rate of energy efficiency improvement by 2030.

Meanwhile, in 2014's evaluation of planetary boundaries, a concept that indicates the health of the global environment, four boundaries (climate change, biodiversity loss, land-system change, and biogeochemical flows) out of nine exceeded their

thresholds. In the evaluation of September 2023, however, six boundaries (the four boundaries mentioned earlier plus freshwater use and novel entities) exceeded their thresholds.

Regarding the trend of international chemicals management, the Global Framework on Chemicals for a Planet Free of Harm from Chemicals and Waste, which aims to make the Earth a planet with no adverse effects of chemicals and waste, was adopted for a safe, healthy, and sustainable future in September 2023.

I deeply appreciate the fact that Kao has formulated Kao SAICM (responsible chemicals management), which aims to have safety and peace of mind in a society in which people enjoy the benefit of chemicals whose risks are properly managed, is leading the industry through the ESG initiatives, and has adopted the following approaches ahead of the international goals.

- (1) Minimize environmental impact throughout the product lifecycle
- (2) Foster community safety and a sense of trust by having zero chemical accidents

- (3) Optimize risk assessment methods for efficient chemicals management
- (4) Make information on chemicals' benefits and safety available in an accessible and easy-to-understand way.
- (5) Effectively communicate with all people around the world to earn trust

In approach (1), for example, it is noteworthy that Kao made concrete efforts to improve the utilization rate of sustainable materials, reduce the content of regulated chemicals of high concern, change the refrigerant at manufacturing sites, and reduce CO₂ emissions through energy saving, electrification, and use of biomass in chemical manufacturing processes. I am also struck by the fact that Kao carried out joint training with the local fire department to encourage risk communication and aimed for more practical collaboration as a concrete activity in approach (2).

I look forward to seeing how Kao will take the initiative and act as a frontrunner in chemicals management for the future.