

# HEALTHY LIFE, SUSTAINABLE TOMORROW

2023 Yuhan Chemical Sustainability Report



## About This Report

### Overview of the report

Yuhan Chemical has published its first sustainability report in 2023 in order to transparently disclose its non-financial activities and performances including its ESG management strategy to the stakeholders. Through the annual publication of its sustainability report, we will transparently disclose all matters related to ESG management, proactively collect opinions from stakeholders, and reflect the results in our management activities.

### Reporting period

The reporting period is from January 1 to December 31, 2022. Data of the first half of 2023 is included for some major performances. For readers to be able to see the recent trend in quantitative performances, data of the recent three fiscal years (2020–2022) is reflected in some indicators.

### Preparation standard

The report was prepared in compliance with the GRI Standards 2021, which is the global standard for sustainability reporting. In addition, the indicators of the UN SDGs (United Nations Sustainable Development Goals) were used as references to reveal appropriate key issue-specific activities.

### Reporting scope

The reporting scope includes the ESG performances of all domestic business sites of Yuhan Chemical. Financial data was prepared based on the Korean International Financial Reporting Standards (K-IFRS). Non-financial data was prepared based on the fiscal year.

### Report verification

To enhance the internal and external credibility of the report, we commissioned third-party verification to the Korea ESG Management Support Association, which verified the report based on AA1000AS v3. The Assurance Statement is attached as Appendix.

### Inquiry about the report

Name of company Yuhan Chemical, Inc.

Address 45 Jiwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do

Responsible department Management Team

Phone number 031-488-5800

Website www.yuhanchem.co.kr

**Date of publication** June 30, 2023

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# CEO Message



Yuhan Chemical CEO & President Seo Sang-hun

Based on Dr. Il-han New's founding philosophy of—“Contributing to the country and its people by making the best-quality products”—Yuhan Chemical strives to do its best to advance human health and social responsibility as an API manufacturer.

Thank you for your interest in Yuhan Chemical and our sustainability. I am Sang-hun Seo, Yuhan Chemical CEO & President.

I sincerely appreciate all the interest and support in the growth of Yuhan Chemical from our stakeholders including clients, suppliers, communities, and employees.

Based on Dr. Il-han New's founding philosophy of—“Contributing to the country and its people by making the best-quality products”—Yuhan Chemical strives to do its best to advance human health and social responsibility as an API manufacturer.

Our earth has recently been experiencing unpredictable natural disasters resulting from climate change. Such phenomena have been greatly caused by greenhouse gases directly or indirectly generated during energy usage, industrial processes, distribution activities, etc. We are not spared from such issues due to the characteristics of our business as an API manufacturer.

195 countries including the Republic of Korea signed the Paris Agreement at the UN Climate Change Conference Paris 2015 in order to prevent global warming. The European Parliament announced in 2022 the Corporate Sustainability Due Diligence Directive (CSDDD), which is based on the monitoring and reporting of and duty to improve environmental damage and infringements of human rights by business sites and their entire supply chains.

Today, we have to respond proactively to climate change as a collective mission for humanity. Accepting the global demand for a high-quality ESG management system is no longer an option but a requirement for survival and sustainable growth. In line with such trend, Yuhan Chemical has announced its ESG management policy in 2022.

Yuhan Chemical inherited our founder Dr. Il-han New's philosophy. Our mission is not only to achieve the technology development and financial values but also, to recognize social values with stakeholders and grow as “a sustainable, eco-friendly global API CDMO leader” to inspire future generations to dream and hope.

To achieve our vision, we will do our best to cooperate with various stakeholders, seek ways to minimize environmental impact, and focus on sustainable business activities to respect the human rights of stakeholders and fulfill our social responsibilities faithfully.

Dear stakeholders of Yuhan Chemical, we will continue to listen and to communicate with you more so than ever before. We will keep developing ourselves as a sustainable enterprise through eco-friendly management (E), social responsibility management (S), and transparent management (G). Your continuous support and interest will be highly appreciated.

Thank you.

Introduction

- Message from the CEO
- About Yuhan Chemical
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- Our Competences

About Yuhan Chemical

“Yuhan Chemical manufactures and supplies APIs with the world-class facilities and quality standards.”

Company name	Yuhan Chemical, Inc.
CEO & President	Seo Sang-hun
Date of establishment	July 1980
Head office address	45 Jiwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do
No. of employees	384 (as of Jun. 30, 2023)
Website	Korean <a href="https://www.yuhanchem.co.kr">https://www.yuhanchem.co.kr</a> English <a href="https://eng.yuhanchem.co.kr">https://eng.yuhanchem.co.kr</a>
Business area	Manufacture of APIs



Assets

243.4 billion Korean won

Number of employees

384

Yuhan Chemical is a cGMP-certified pharmaceutical company focusing on the contract manufacturing of APIs. Our API manufacturing and quality management system have been certified for adequacy by the FDA (US), EDQM (Europe), PMDA (Japan), TGA (Australia), etc. High-quality APIs produced through our excellent production facilities and quality management process are supplied to domestic and global pharmaceutical companies, contributing to human health.

In November 2022, construction of Hwaseong Plant Building HB commenced in Mado-myeon, Hwaseong-si, Gyeonggi-do in order to enhance the production capacity of our global API CDMO business. We will develop our competitiveness by expanding our API plant that meets global standards. With a total floor area of 9,709m<sup>2</sup>, the plant is currently under construction. Construction work is expected to be completed in October 2023.

Yuhan’s Mission, Vision, and Talent Pool

Mission

We are committed to promoting human health, contributing to the economy, and doing our best to promote social welfare.

Yuhan Chemical contributes to promoting human health through the manufacture of quality APIs, enhancing social welfare by returning corporate profits to society, and developing the economy through sustainable growth.

Vision

A sustainable global API CDMO leader

Strategic goals

**Quality**

To ensure high-quality competitiveness through strict quality management and compliance with GMP

**Technology**

To manufacture high-quality APIs for promoting human health based on our outstanding technology and accumulated expertise

**Service**

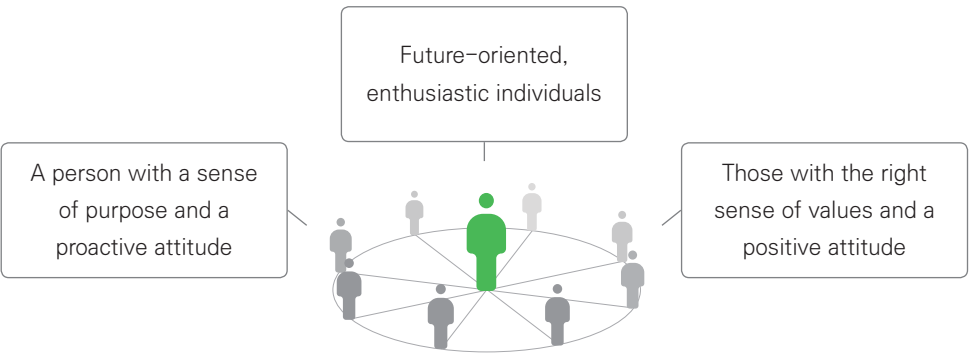
To pursue customer satisfaction by considering customer values as a top priority based on honesty and trust

**Safety**

To practice safety, health, and environment-based management with the goal of promoting human health and creating a clean environment through respect for human beings and eco-friendly management

Talent Pool

Talented individuals capable of fulfilling the spirit of Yuhan



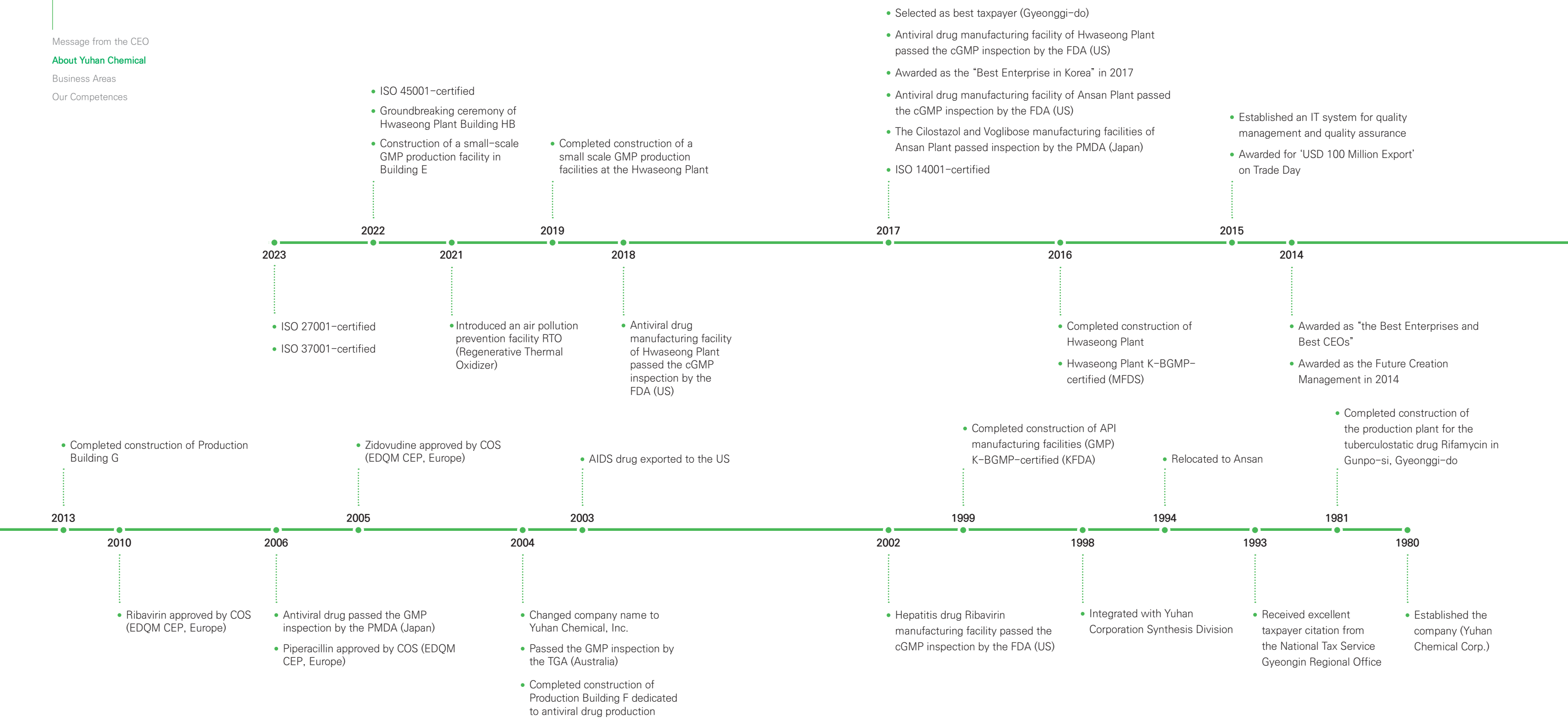
- Individuals who are willing to contribute to accomplish common goals as a team based on enthusiasm and determination
- Those who are always ready even in the rapidly changing environment through constant challenges and self-development
- Those who can practice the virtues of Yuhan: Loyalty, Faithfulness, and Honesty



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History of Yuhan Chemical



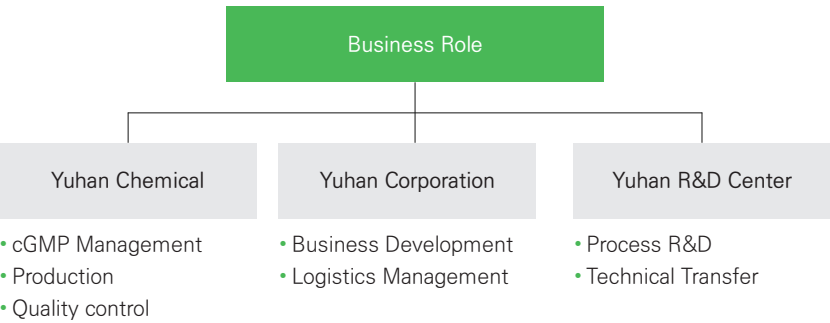
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Business Area

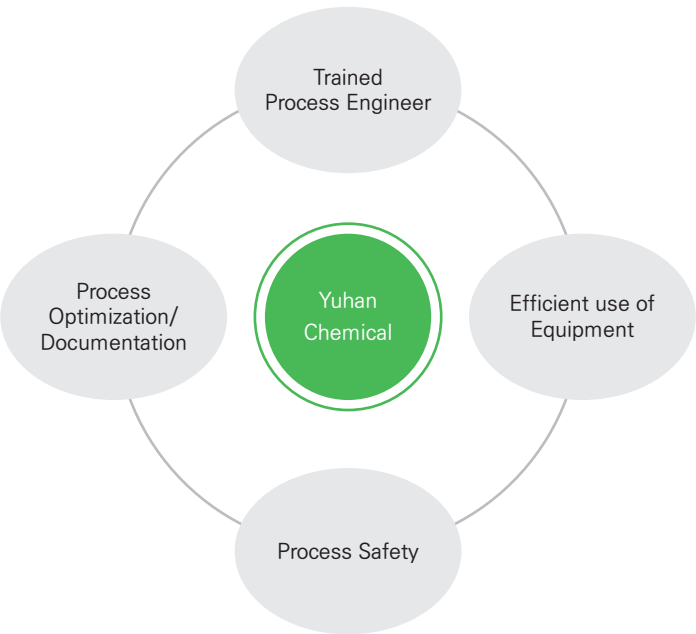
CDMO Business Model

Yuhan Chemical is making efforts to enhance its production systems and quality management in order to secure competitiveness in the CDMO business.



Process Development

Since our foundation in 1980, Yuhan Chemical has been developing its API productivity as core competence. One of our strengths is the process development based on our accumulated experiences.



Contract Analytical Testing Service

Yuhan Chemical provides analytical service in compliance with cGMP which ensures the world-class data integrity. We achieve customer satisfaction through customer-centered quality services.

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Ansan Plant



Quality Management Laboratory

Our Competences

GMP Manufacturing

Ansan Plant and Hwaseong Plant

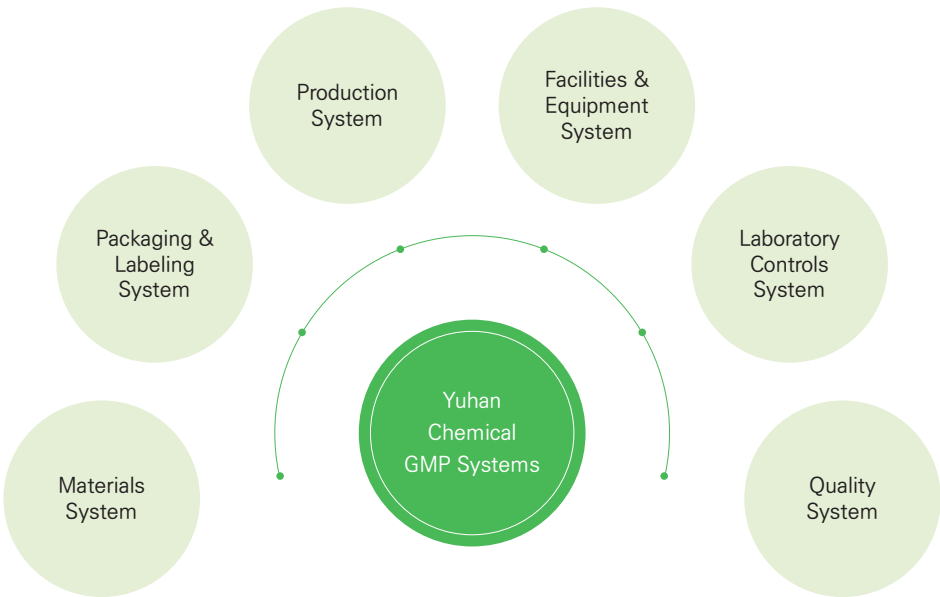
Since its establishment in 1980, Yuhan Chemical has been growing through continuous investment. In 1993, the Company relocated and newly constructed the Ansan Plant for chemical synthesis with total floor area of 33,201m², the Korea's largest API production capacity (approximately 730,000 liters) at the time. In January 2016, we constructed Hwaseong Plant with total floor area of 17,342m² and installed the latest production facilities in order to respond flexibly to the continuously growing demand and expand our CDMO business.

small scale GMP production facilities

Yuhan Chemical installed small scale GMP production facilities in Hwaseong Plant to deliver APIs and intermediates for early clinical stage research and clinical trials for NCEs, and incrementally modified drugs. Yuhan Chemical's small scale GMP production facilities present an infinite growth engine to all clients based on the company's hi-tech facilities, outstanding human resources, and technology.

Quality Assurance and Quality Management

Yuhan Chemical was certified for Bulk Good Manufacturing Practice (BGMP) by the Ministry of Food and Drug Safety (MFDS) in 1999, and it also passed inspection by the FDA (US) in 2002. We were recognized as a manufacturing facility meeting the cGMP by the US and leading pharmaceuticals countries. Yuhan Chemical's Quality Control Division, in compliance with the cGMP standards, operates the CDS (Chromatography Data System) and LMS (Laboratory Management System) in order to meet FDA 21 CFR Part 11 and ensure the traceability, security, and integrity of data generated in the laboratory.





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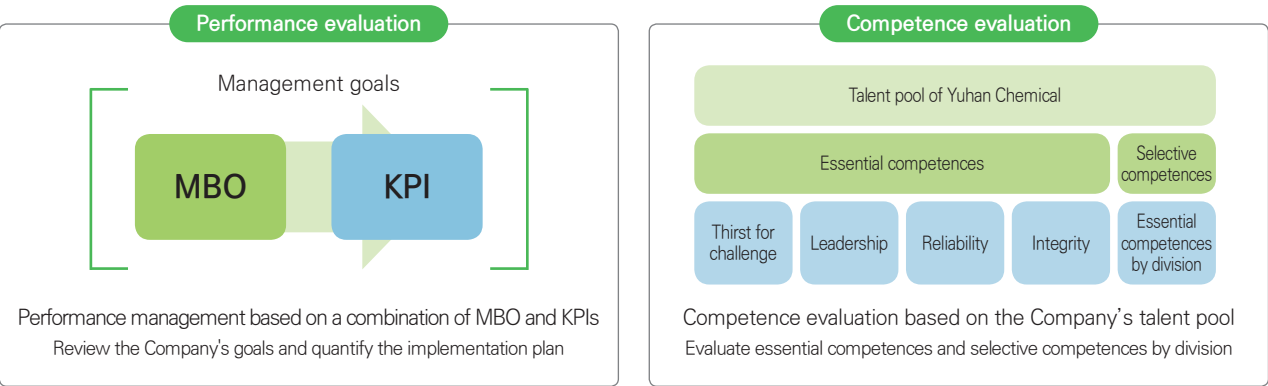
Corporate Culture

Yuhan Chemical strives to create a harmonious corporate culture through fairness, coexistence, and communication based on respect for human beings. All employees of Yuhan Chemical are doing their best to fulfill their duties with a sense of responsibility by practicing the corporate culture for continuous changes and development.

Fair Rewards

Yuhan Chemical is operating a fair, objective evaluation system to provide suitable rewards to its employees depending on their performance. We conduct fair performance evaluation every year and provide performance-based incentives based on the fair and rational reward system. Personnel evaluation is divided into performance evaluation and competence evaluation. Performance evaluation is conducted based on individuals' work performances. On the other hand, competence evaluation is conducted with the competence standards established based on the Company's philosophy and core values.

Personnel evaluation system



Labor-Management Council



Respect for retirees

Coexistence-based labor-management culture

Yuhan Chemical has never experienced any labor dispute for the past 43 years since its foundation. Our advanced labor-management culture is a result of the management and employee's sense of ownership and devotion to the Company. We hold a Labor-Management Council meeting every quarter. The Labor-Management Council consists of management representatives and labor representatives. In particular, labor representatives include one or two persons from each division so that they can pay attention to employees' difficulties and recommendations. All the items of the agenda are discussed with an open mind. All labor representatives attend a quarterly management performance briefing and ask the management any questions they may have.

Respect for retirees

Employees of Yuhan Chemical retire at the age of 60. We give a three-month paid leave to retirees-to-be who have worked for the Company for nearly half of their lives so that they can prepare for life after retirement. We also give them an appreciation plaque at a retirement ceremony and throw a tea party so that they can talk with the management before retiring. Even after retirement, we keep their numbers in case of special family events. We keep in touch with them, believing that once a member of Yuhan, you are always a member of Yuhan.

Communicative culture between employees

Yuhan Chemical publishes Yurial (company newsletter) in order to contribute to the Company's development by sharing various kinds of knowledge and information and building a sense of belonging. Yurial is made with articles, photos and interviews with employees. It represents Yuhan employees' sense of belonging and outstanding communication culture.

Fair rewards

Create a reasonable corporate culture through a performance-based personnel management system as well as fair rewards

A win-win based labor-management culture

Hold a Labor-Management Council meeting every quarter, handle employees' grievances, and inherit the tradition of dispute-free business sites

Respect for retirees

Grant a leave so that retirees-to-be can prepare for their retirement

Communication between employees

Active communication between employees through the company newsletter (Yurial)



Gym



Physical examination



Contribution award and exemplary employee award



Long service award

Welfare benefits

Yuhan Chemical provides high standards of welfare benefits so that all employees can have a stable job and enjoy a healthy, happy life. We give free physical examination and vaccination benefits and operate company gyms to promote employee health. We also provide family event allowances and scholarships for employees' children for security and family welfare, based on the belief that "people" lead the Company.

Health promotion	Physical examinations, result consultation, and health care at a general hospital Vaccination benefits Gyms and dry saunas
Family events	Family event leave Condolatory flowers and funeral items
Scholarship for children	Full tuition fees of junior high and high school, college/university and graduate school of medicine, pharmacy, and dentistry (Maximum limit within provided for children studying abroad) No limit in the number of children

We give exemplary employees a chance to go on a trip abroad as an incentive. We also give a monetary gift and a present to employees selected through the citation and reward system.

Citation/Reward	Achievement award, exemplary employee award, and long service award Monetary gifts and presents Long service leave
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We are operating a determined benefit (DB) retirement pension plan for the happy lives of employees in their golden years. We also provide a training leave for employees' post-retirement lives and new challenges. We actively reflect employees' opinion to improve our welfare systems. We also provide welfare mileages for all employees twice a year.

Cafeteria	Serve a wide range of dishes Serve healthy dishes and snacks Operate unmanned stores
Commuter bus	Operate commuter buses to Ansan, Geumjeong, and Incheon Operate night commuter buses
Recreational facilities	Resorts and hotels in Korea
Others	Foundation day gift Provide vehicle fuel expenses Free coffee machines



# ESG Highlights

Yuhan Chemical will continue its effort to become a global API manufacture leader by contributing to people’s health and wellbeing. We have been manufacturing APIs for the past 40 years. Today, we are evolving into a pharmaceutical company that provides a better life for our stakeholders through corporate social responsibility activities.

Also, Yuhan Chemical will advance to be a “sustainable, eco-friendly global API CDMO leader” who inspires future generations and global citizens to dream and hope through safe and environment management including hazardous chemical substance and waste discharge, strengthening of product responsibility, and responsible safety and environment management.

- ESG Management System
- Communication with Stakeholders
- Materiality Assessment
- Special Message
- ESG Highlights 1 Hazardous Chemical Substance and Waste Discharge Management
- ESG Highlights 2 Strengthening of Product Responsibility
- ESG Highlights 3 Responsible Safety, Health, and Environmental Management





ESG Highlights

ESG Management System

Communication with Stakeholders

Materiality Assessment



ESG management activities (2023)



Yuhan ESG Management Proclamation Ceremony

ESG Management System

The purpose of Yuhan Chemical's ESG management is to protect human lives and health and to realize sustainable development through continuous innovative management to enhance the quality of life and supply world-class APIs. As one of the affiliates of the Yuhan Group, who is sharing the philosophy of founder Dr. Il-han New, Yuhan Chemical attended the Yuhan ESG Management Proclamation Ceremony and vowed to practice ESG management proactively and realize common social values. During the ceremony, Yuhan affiliates kept in mind Dr. Il-han New's foundation philosophy: “Corporate profits should be returned to society” and “Honesty should be a permanent tradition of Yuhan.” They agreed that the philosophy is in line with the spirit of sustainable management. Based on the foundation philosophy, Yuhan affiliates vowed to practice ESG management proactively for a better future, human health, and Earth through systematic cooperation.

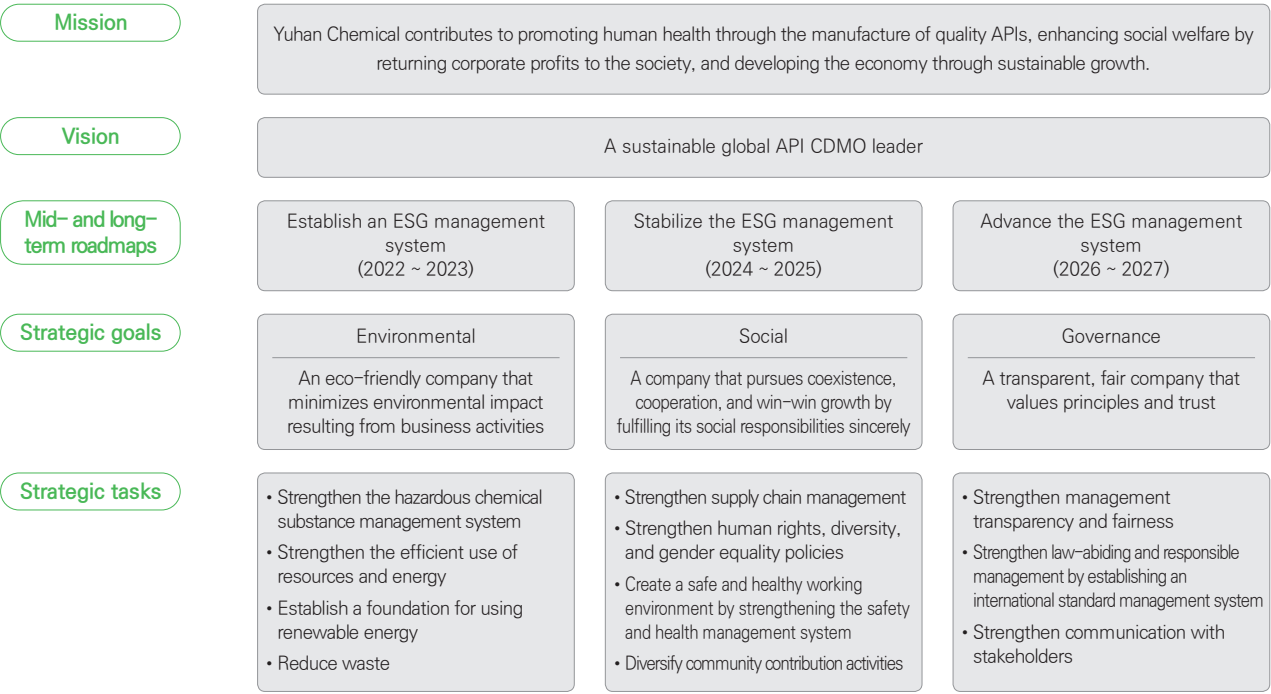
Establishing an ESG management system

Starting with the ESG management proclamation of Yuhan Chemical CEO & President Sang-hun Seo during the 2022 new year's address in 2022, Yuhan Chemical established its ESG management system. We do not consider profit maximization to be our only goal, but also aim to create social and economic values. Ultimately, it is the starting point to become a sustainable company. In 2022, we operated a TF team to establish our ESG management system and newly formed the Environment Team, Safety & Health Team, and Safety & Health Management Office to monitor ESG management performances and formulate follow-up plans. With the first publication of our sustainability report in 2023, we conducted materiality assessment and ESG management diagnosis to strengthen communication with stakeholders and encourage their participation. Through such process, we will establish our ESG management strategies and make decisions through the performance creation and information disclosure of ESG management activities by reflecting domestic and overseas clients' opinions.

ESG management strategies

To become an ESG-based API manufacturing leader by 2030, which will be the 50th anniversary of Yuhan Chemical, we formally announced our ESG management drive in 2022. In February 2022, we conducted an ESG diagnosis to accelerate our ESG management. Then, we formed the ESG TF team under the CEO & President and established an ESG management system based on environmental management, social responsibility management, ethical management, and transparency management. Through this process, we established our ESG management mission—“we contribute to promoting human health through the manufacture of quality APIs, enhancing social welfare by returning corporate profits to society, and developing the economy through sustainable growth”—and our vision of “a sustainable global API CDMO leader.” In addition, we will create a virtuous circle of ESG management based on our ESG performances by establishing three mid- and long-term roadmaps, ESG management goals, and strategic tasks. Starting with the introduction of ESG management in 2022 and the establishment of the ESG management system in 2023, we will stabilize and upgrade the system by 2025 and 2027, respectively.

ESG management strategy system



ESG mid-term roadmaps



To achieve this, Yuhan Chemical's business activities should systematically coexist with a variety of stakeholders. We will respect the human rights of our stakeholders and consider our potential environmental impact, social responsibilities, and sustainable business factors as a member of society. Based on our enterprise-wide ESG management implementation group and future-oriented strategies, we will enhance the values of the Company and our stakeholders, comply with the ten principles of the UNGC, and achieve the UN SDGs (Sustainable Development Goals) by practicing ESG management. Our goal of ESG management is to become a “sustainable global API CDMO leader” based on the UN SDGs and Dr. Il-han New's foundation philosophy.

ESG Highlights

ESG Management System

Communication with Stakeholders

Materiality Assessment

Communication with Stakeholders

Yuhan Chemical defines its stakeholders as clients, employees, shareholders, suppliers, communities, and government. We proactively collect stakeholders' opinions through various channels and reflect their opinions in our business. We also reflected stakeholders' different opinions in the materiality assessment. We will closely communicate with all stakeholders through continuous monitoring as well as the management's report and strengthen mutual trust.

Stakeholders	Communication channel	Major concerns
Clients	• Website	• Swift provision of accurate information
	• YouTube	
	• Sales channel (Yuhan Corporation Overseas Business Division)	• Production and quality improvement
	• Others (e-mail, official documents, etc.)	• Prevention of leakage of personal information
Employees	• Company newsletter (Yurial)	• Guarantee of job stability
	• Groupware bulletin board	• Guarantee of employees' safety
	• Labor-Management Council	• Fair evaluation and opportunities
	• Occupational Safety and Health Committee	• Horizontal corporate culture
	• Process safety meeting	• Improvement in welfare benefits
	• Supervisors' meeting	
Shareholders	• General meeting of shareholders	• Sustainable growth
	• Regular BOD meeting (every quarter)	• Implementation of new business
	• Special BOD meeting	• Financial performances and distribution
	• Monthly performance report	• Transparent governance
	• Audit report	• Risk management
Partner companies	• Questionnaire survey with partner companies	• Fair trade
	• Electronic bidding	• Coexistence and cooperation
	• Meeting with partner companies	• Information sharing
		• Supplier evaluation
Local communities		• Balanced regional development
		• Revitalization of regional economy
	• Support for welfare institutions	• Support for the underprivileged
	• Employees' volunteer work	• Support for senior citizens' centers
	• Website	• Support for children's foundations
		• Employees' volunteer work (kimchi making, etc.)
		• Support for crime prevention activities
		• Support for self-reliance of families in crisis
		• Environmental protection and neighborhood cleanup
Government	• Annual report (business report)	• Fair trade and anti-corruption
	• Governmental audit report	• Transparent disclosure of corporate information
	• Compliance with laws and regulations	• Creation of economic values and honest tax payment

ESG Highlights

ESG Management System

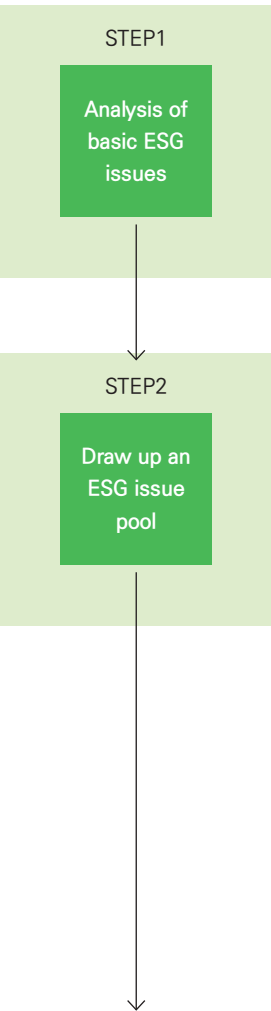
Communication with Stakeholders

Materiality Assessment

Materiality Assessment

Yuhan Chemical identified key ESG report issues that might affect sustainability and conducted a materiality assessment in accordance with the report theme selection principle of the GRI Standards in order to select the report contents of the sustainability report. We used the ESG evaluation systems and global sustainable management initiatives such as GRI Standards, SASB, and UN SDGs. In addition, we reviewed our sustainable management performances through media analysis and collected stakeholders' opinions. Materiality assessment is the process of identifying economic, environmental, and social issues that are important to the Company and its stakeholders. We gain insight into future trends, business risks, and opportunities through the materiality assessment.

Materiality assessment process

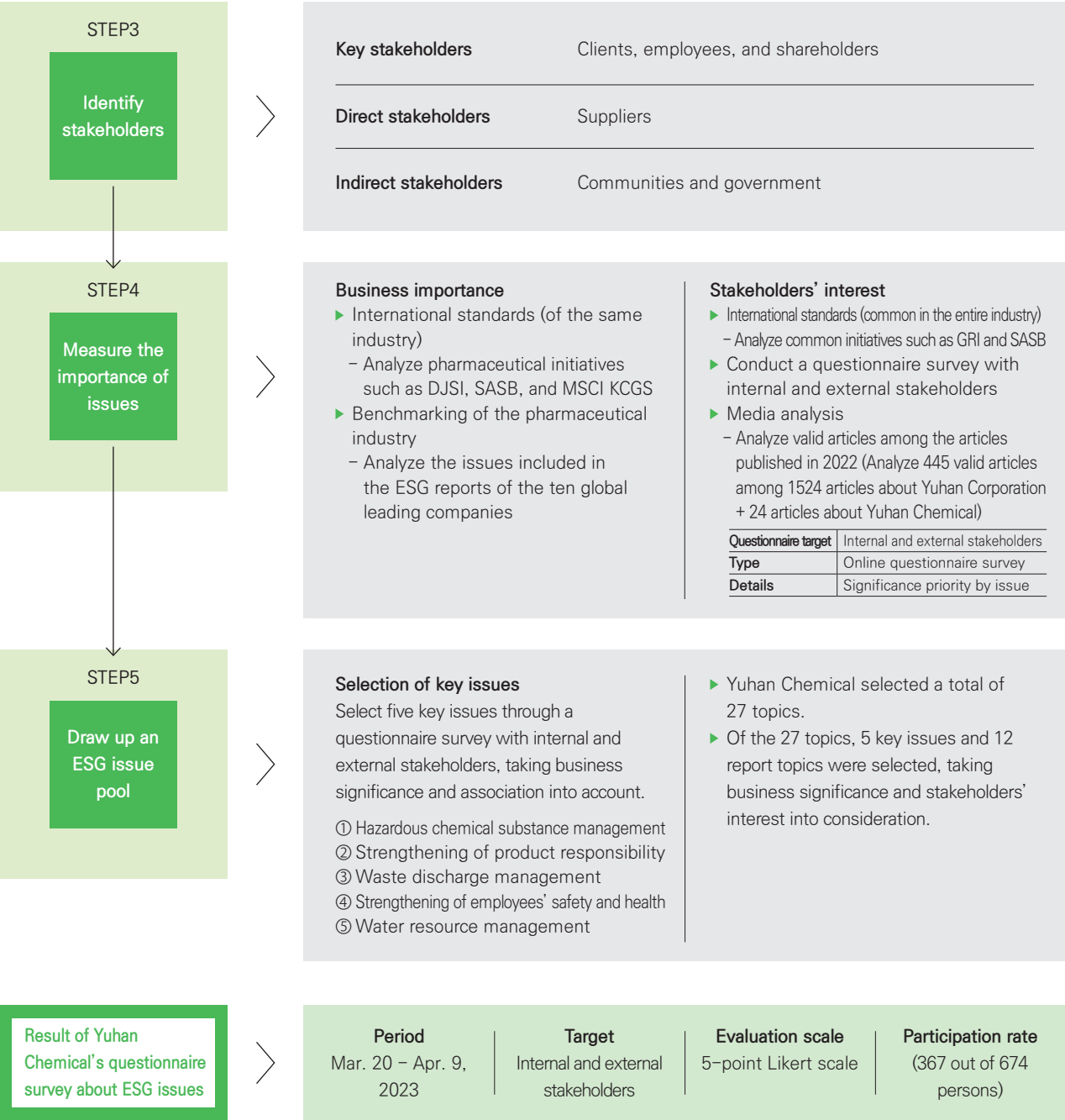


<b>Global guidelines</b> GRI, UN SDGs, ISO26000, ten principles of UNGC, and SASB	<b>External stakeholders</b> Media research, questionnaire surveys, and global best practices
<b>ESG evaluation systems</b> MSCI, KCGS, DJSI	<b>Internal activities</b> Yuhan Chemical's internal sustainable management activities and ESG activities

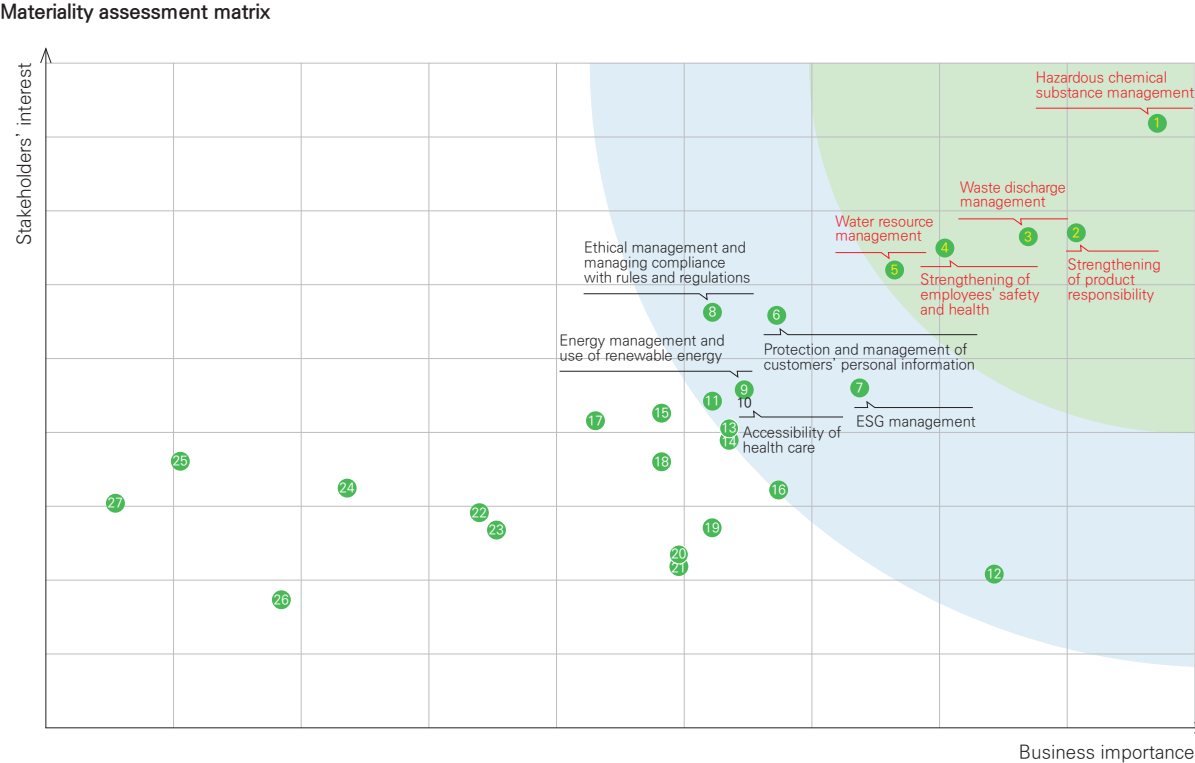
① Hazardous chemical substance management	⑯ Cultivation of talented individuals (developing employees' competences and cultivating talented individuals)
② Strengthening of product responsibility	⑰ Information security governance (information transparency including public announcement and accounting)
③ Waste discharge management (waste management and minimization)	⑱ Securing the transparency and integrity of the BOD
④ Strengthening of employees' safety and health (spreading a safety culture)	⑲ Human rights management (vitalizing the grievance handling system concerning labor and human rights)
⑤ Water resource management (use and reuse of water)	⑳ Employment (creating quality jobs)
⑥ Protection and management of customers' personal information	㉑ R&D (expanding investment in R&D)
⑦ ESG management (establishing a sustainable management strategy system and strengthening competitiveness)	㉒ Eco-friendly supply chain management (suppliers' eco-friendly product management)
⑧ Ethical management and law-abiding management (strengthening compliance)	㉓ Employee diversity and inclusion (equal employment and prohibition of discrimination)
⑨ Energy management and use of renewable energy	㉔ Responses to climate change (management of and responses to climate change risks)
⑩ Accessibility of health care (employees' health care)	㉕ Social contribution activities
⑪ Sustainable supply chain management	㉖ Eco-friendly product packaging
⑫ Welfare benefits for employees (work-life balance)	㉗ Influence on communities (building trust with communities)
⑬ Business innovation (securing a sustainable future growth engine)	
⑭ Anti-corruption and fair trade	
⑮ GHG emission management and reduction	





Materiality assessment result

Through the materiality assessment, Yuhan Chemical selected the key issues required for 2023 sustainable management. As a result of the materiality assessment, hazardous chemical substance management, strengthening of product responsibility, waste discharge management, strengthening of employees' safety and health, and water resource management were selected as the five most important issues. Since Yuhan Chemical is an API manufacturer, hazardous chemical substance management was selected as a top priority, and is found to be stakeholders' continuous concern. Strengthening of product responsibility, waste discharge management, strengthening of employees' safety and health, and water resource management were ranked high. The demand for product stability and environmental responsibility has been increasing.



No.	Key issues	Report location
①	Hazardous chemical substance management	24
②	Strengthening of product responsibility (product and service quality management and suppliers' quality management)	26-27
③	Waste discharge management (waste management and minimization)	25
④	Strengthening of employees' safety and health (spreading a safety culture)	42-43
⑤	Water resource management (use and reuse of water)	37
⑥	Protection and management of customers' personal information	46-47
⑦	ESG management (establishing a sustainable management strategy system and strengthening competitiveness)	16-17
⑧	Ethical management and law-abiding management (strengthening compliance)	51-52
⑨	Energy management and use of renewable energy (energy consumption management and efficiency improvement)	36
⑩	Accessibility of health care (employees' health care)	13
⑪	Sustainable supply chain management (expanding supply chain sustainability and strengthening risk management)	44-45
⑫	Welfare benefits for employees (work-life balance)	13
⑬	Business innovation (securing a sustainable future growth engine)	54-55
⑭	Anti-corruption and fair transaction	51-52
⑮	GHG emission management and reduction	36
⑯	Cultivation of talented individuals (developing employees' competences and cultivating talented individuals)	40
⑰	Information security governance (information transparency including public announcement and accounting)	46-47
⑱	Securing the transparency and integrity of the BOD	53
⑲	Human rights management (vitalizing the grievance handling system concerning labor and human rights)	41
⑳	Employment (creating quality jobs)	39
㉑	R&D (expanding investment in R&D)	54-55
㉒	Eco-friendly supply chain management (suppliers' eco-friendly product management)	44-45
㉓	Employee diversity and inclusion (equal employment and prohibition of discrimination)	41
㉔	Responses to climate change (management of and responses to climate change risks)	35-37
㉕	Social contribution activities	26-27
㉖	Eco-friendly product packaging	26-27
㉗	Influence on communities (building trust with communities)	48-49



## Special Message



**We will be a pharmaceutical company that is beneficial to both people and Earth just like the shade of a willow tree.**

Climate change, which has catastrophic effects on the Earth, is one of the biggest crises for human kind in the 21st century. Climate change causes severe natural disasters such as heat waves, typhoons, floods, droughts, desertification, and sea-level rises and damages to people, ecosystems, and ecological diversity. Such climate crises spread infectious diseases, and this increases the demand for drugs. As a result, production and distribution activities grow, affecting the environment and creating a vicious circle.

In line with the rising demand for drugs, the pharmaceutical industry affects the environment during its life cycle including drug development, production, distribution, use, and disposal. The pharmaceutical industry should be aware of such issues and minimize the environmental impact generated during drug production, supply, and disposal. As a CDMO developing and manufacturing APIs, Yuhan Chemical is aware of the significance of environmental protection in the dilemma between the benefits of drugs and the potential negative effects of drug production.

It is inevitable that energy used for API manufacture generates greenhouse gases and chemicals used for production cause water and air pollution. However, it is also important to be aware of the positive effects of drugs on human health and survival.

As an API manufacturer considering respect for life as a top priority, we understand that drug production and distribution affect the environment and that drugs have an important role in saving people from severe diseases, alleviating pain, and enhancing the quality of life. Our resolution to practice sustainability is not to compromise on the safety and efficacy of APIs but to supply high-quality APIs to customers all over the world with a sense of responsibility while minimizing environmental impact.

Therefore, we are making sustainable efforts to minimize environmental impact during production. We are doing our best to reduce GHG emissions and protect the environment by gradually replacing preexisting facilities with high-efficiency facilities for reducing energy consumption, investing in renewable energy facilities, establishing a web-based chemical management system for strict chemical management, strengthening the waste reduction and recycling system, installing regenerative thermal oxidizer facilities to minimize air pollutants, and upgrading the wet scrubbers and dust collectors. We recognize that our responsible practice of sustainable management is expanded to the pharmaceutical industry and the society of coexistence. In cooperation with our stakeholders, we will do our best for sustainable growth, minimizing environmental impact accompanied by the stable supply, production, and distribution of drugs required for disease prevention and treatment.



ESG Highlights

ESG Highlights

1 2 3

Necessity of Hazardous Chemical Substance Management

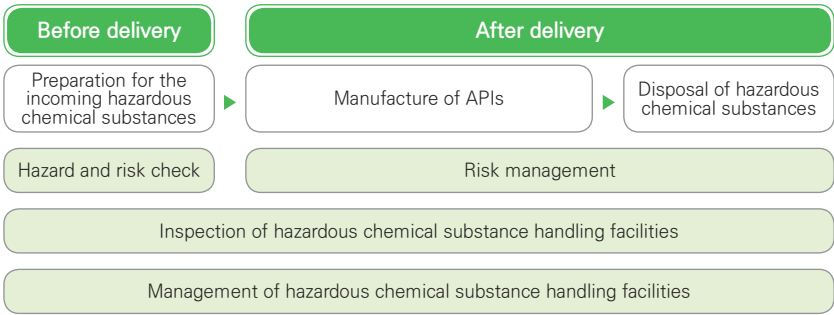
Implementation Strategy for Hazardous Chemical Substance Management

1 Hazardous Chemical Substance and Waste Discharge Management



Yuhan Chemical handles and systematically manages over 400 chemicals depending on their characteristics. Mishandling of chemicals may severely threaten safety and health or critically affect the environment. Cognizant of the fact that most of the recent chemical accidents resulted from managerial errors such as mishandling and poor management, we are doing our best to prevent chemical accidents through thorough management of Hazardous chemical substances.

Yuhan Chemical's hazardous chemical substance management system is perfectly customized for the API manufacturing processes. Our hazardous chemical substance management system encompasses all the API manufacturing processes. With this system, we identify the harmfulness of chemicals for API manufacture, minimize the chemical handling risk, manage our hazardous chemical substance handling facilities, and cultivate hazardous chemical substance management experts.



**Task 1** Registration and evaluation of new chemicals(Non-phase-in chemical)

We identify and monitor the risk of all chemicals frequently in order to comply with all legal standards required for new chemicals before handling. We request a chemical hazard assessment from a GLP-certified testing agency before handling new chemicals in order to identify their Hazard to the human body and the environment.

**Task 2** Chemical Management System (CMS)

Based on our warehouse management system and enterprise-wide resource management system, we formulate a safe chemical handling plan and identify the chemical movement route from delivery to release. This year, we are planning to introduce a new chemical management system dedicated solely to the management of chemicals.

**Task 3** Management of hazardous chemical substance handling facilities

Yuhan Chemical requests inspection on hazardous chemical substance handling facilities from an authorized testing agency in order to identify and manage the safety of such facilities every year. In addition, we regularly take advice on safety from an external safety diagnosis agency and reflect on their advice with a proactive attitude.

Major Performances and Status of Hazardous Chemical Substance Management

Yuhan Chemical has increased the number of hazardous chemical substances supervisors (chief & inspectors) for the safe handling and management of hazardous chemical substances. We have also found and improved numerous risk factors through continuous inspections. In addition, we are working on an industry-academia project to advance our knowledge of continuous chemical prevention activities. Through this project, we are working with Inha University Environmental Safety Laboratory to resolve safety-related issues.

Hazardous chemical substance management performance in 2022 / 2023 goals

Performance in 2022	2023 goals and plan
Appointed additional supervisors for hazardous chemical substances (chief & inspectors) (3→22)	Expert training for hazardous chemical substances supervisors (chief & inspectors) (Chemical accident response training and chemical safety training)
Demonstrated excellence in implementing the chemical accident prevention and management plan (Received an award from the Ministry of Environment at the Excellent Chemical Accident Prevention Plan Implementation Case Contest)	Creation of culture of safety for preventing chemical accidents
Implemented an industry-academia project (Systematized the categories of locations at risk of flammable chemical explosion)	A new industry-academia project

Hazardous Chemical Substance Safety Education

Utilizing the education system of the National Institute of Chemical Safety affiliated with the Ministry of Environment, Yuhan Chemical provided online education on basic understanding and safe handling of hazardous chemical substances. In addition, we are providing a wider range of offline education to our employees through external education institutions. As a result, all employees of Yuhan Chemical are well-aware of the risk of chemicals, and they understand that a simple mistake or error may lead to fatal consequences. All of our employees are doing their best to prevent accidents in their positions.

Waste Management

All waste generated during our business activities are properly treated in accordance with the Wastes Control Act. Waste is treated in various ways such as landfill, incineration, and recycling. We are seeking better ways to manage and treat waste for creating higher values and contributing to community development.

Waste management system

Yuhan Chemical monitors and manages the amount of waste generated during the processes in order to prevent environmental pollution resulting from waste generation. We are monitoring all the waste management processes from generation to treatment. In case of waste that may affect the environment in any negative way or cause pollution, we take it out in accordance with related laws and regulations. We select a waste treatment agency to manage separately the designated waste that may pollute the surroundings. We will continuously increase waste recycling rates by improving our waste categorization process and reinventing recycling technology.

Category	Unit	2020	2021	2022
Waste recycling rate <sup>1)</sup>	Ansan Plant	59	75	75
	Hwaseong Plant	83	83	80

1) Based on data from the Korea Resource Recirculation Information System of the Ministry of Environment of the Republic of Korea.

Waste Management Education

We provide all employees with education about the waste treatment procedure by type and how to minimize waste generation. We are reducing waste generation and increasing waste recycling rates by preventing different types of waste from mixing.

# ESG Highlights

ESG Highlights

1 2 3

## Significance of Strengthening Product Responsibility

## Quality Management Policy

## Strategy for Strengthening Product Responsibility

# 2 Strengthening of Product Responsibility



Yuhan Chemical has realized its social responsibilities and roles as an API manufacturer for the past three years of the COVID-19 pandemic. Now, we are more focused on product efficacy and safety during the development process. We will strengthen our product responsibility and upgrade safety by complying with the quality management policy strictly, continuously improving our processes, and establish a comprehensive strategy focusing on product safety and quality during API R&D and production. This is a way of ultimately contributing to long-term business success and sustainability, considering safety and quality as a top priority.

Yuhan Chemical was certified for Bulk Good Manufacturing Practice (BGMP) by the Ministry of Food and Drug Safety (MFDS) in 1999, and our facility has successfully passed the initial inspection by the FDA (US) in 2002. Since then we have been acknowledged as a having a manufacturing facility that is in compliance with cGMP by the US and other leading pharmaceutical-nations. Aiming for the world's best GMP system, we have introduced the Computerized Quality Management System Trackwise for the first time in the domestic API industry. To meet the regulatory agencies and clients quality standards that are gradually becoming more complex, we are continuously strengthening our IT-based GMP system.

Yuhan Chemical's Quality Control Division, which always complies with the cGMP Standards, meets the demand and requirements of clients and regulatory agencies and manages its API quality at the world's highest level based on a wealth of experience and hi-tech equipment. We are operating compliance-ready CDS and LMS systems in order to meet FDA 21 CFR Part 11 and ensure the traceability, security, and integrity of data generated in the laboratory. All chromatography (HPLC, UPLC, and GC) systems are operated with the CDS based on the network. All analysis data including CoA generation are comprehensively managed by LMS consisting of ELN and SDMS.

### Management of ingredients and materials

All ingredients and materials used for API and intermediate are manufactured under the Yuhan Chemical's strict quality management. Different grades apply to ingredients and materials depending on their significance. We purchase ingredients and materials only from suppliers that pass a periodic evaluation including questionnaire survey, evaluation of vendor CoA, sample quality analysis, use-test, and onsite inspection.

### Strengthening of safety

We use filters to prevent foreign substances during the manufacturing processes. The processes are conducted in a Cleanroom equipped with a HEPA filter. In addition, we are planning to introduce a magnetic filter before the packing process in order to prevent foreign materials.

## Key Achievements and Current Statues of Product Responsibility Guarantee

### Product Safety and Annual Product Quality Review

Yuhan Chemical regularly evaluates whether product quality is maintained until the use-by date in accordance with the Regulations on the Safety of Drugs and Standards on Drug Stability Test. In addition, we prepare an Annual Product Quality Review report containing information about product yields, test and analysis data, complaint handling history, return/recall/reprocess/ rework history, modifications during any process, major facilities and equipment, manufacturing processes, whether a validation has been conducted, and modifications in permissions. Based on this data, we are able to improve the product quality.

### Quality management education

Yuhan Chemical provides GMP training as part of the quality control education through the Korea Pharm Tech Education Center. We effectively manage new employee training through training and evaluation records by using ComplianceWire. In addition, we are operating an e-learning program on a trial basis. We are upgrading our education materials and evaluation questions based on a question bank library.

### Enhancing product reliability and safety

Yuhan Chemical is making effort to eliminate potential quality risks for product quality and safety. First of all, we have rationalized the ambient warehouse temperature management standards and sampling points for environmental assessment. In addition, we have strengthened measures to prevent the contamination of products.

### Optimized Quality system in compliance with the GMP standards

#### World-class GMP system

Yuhan Chemical is operating a GMP quality system based on the Six GMP systems (MFDS, USFDA, PMDA, TGA, etc). Aiming for the world's best GMP system, We are continuously improving our GMP system through inspections and audits by domestic and overseas regulatory agencies and pharmaceutical companies.

#### Best-quality APIs

Yuhan Chemical supplies APIs to multinational pharmaceutical companies all over the world. We have grown as one of the best API manufacturers by producing quality APIs in an eco-friendly way and ensuring price competitiveness.

#### Strict quality assurance

All employees of Yuhan Chemical are doing their best to guarantee the best quality in all API manufacturing processes based on transparency, faithfulness, and expertise. We are ensuring the best quality by establishing Standard Operating Procedures for all quality activities and complying with the GMP Standards.

#### Strict compliance with the regulations

Yuhan Chemical is producing APIs in strict compliance with the regulations of its clients as well as domestic and overseas regulatory agencies (MFDS, USFDA, PMDA, TGA, EDQM, and EMA).

#### Continuous strengthening of key competences

As an API CDMO, Yuhan Chemical is making every effort to supply the best-quality products by providing systematic and professional training, installing hi-tech production and testing facilities, ensuring data integrity (computerized systems) based on 21 CFR Part 11, managing CTD, CEP, DMF, and domestic and overseas authorization, and building a trust-based CDMO partnership (swift responses to customer requirements).

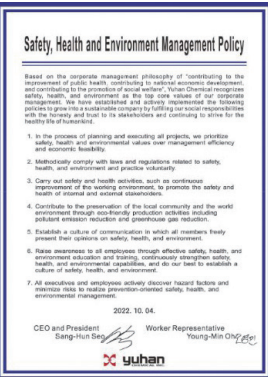




ESG Highlights

ESG Highlights

1 2 3



Safety, health, and environment management policy



Yuhan Chemical has been acknowledged for its excellence in chemical accident and safety prevention management

Win-win Safety Management

3 Responsible Safety, Health, and Environmental Management



Yuhan Chemical is committed to taking responsibility for people and the global environment. In line with the expansion of ESG management, safety, health, and environment are of growing importance. We are practicing comprehensive safety activities to protect our employees and stakeholders from safety, health, and environment risks. All of our business sites have been certified for their Environmental Management System (ISO 14001) and Occupational Health and Safety Management System (ISO 45001). We are making every effort to make our business sites safer and more pleasant. In addition, we have established GHG emission reduction strategies in keeping with the global trend. We are also practicing eco-friendly management through GHG emission and energy index management. As an API manufacturer, we will become a global leader in responsible safety, health, and environment management through proactive responses.

On November 30, 2022, Yuhan Chemical received the Grand Prize (Award from the Minister of Environment) at the 2nd Chemical Accident Prevention and Management Plan Awards hosted by the National Institute of Chemical Safety affiliated with the Ministry of Environment in the implementation and management category. We introduced our accident prevention and safety activities including the disaster-free, accident-free, claim-free campaign, safety and health calendar, accident prevention bulletin board and open chat, safety activities with suppliers, management's walkthrough, inspection on the fire extinguishing system under the NFPA (National Fire Protection Association) standards, and safety and health day event. Such activities were acknowledged as exemplary activities to prevent chemical and safety accidents. Considering our employees and stakeholders' safety as a top priority, we have expanded our safety and health management group for more proactive safety, health, and environment activities. Based on this, we are spreading the culture of safety and practicing accident prevention activities.



Responsibility to employees and suppliers

Yuhan Chemical considers the safety of all workers including suppliers' employees to be a top priority. We share our safety and health management policy and risk management policy with all stakeholders. In addition, we have been making efforts to prevent accidents and strengthen safety. We will do our best to comply with the domestic laws for accident prevention and to secure all stakeholders' safety including suppliers' employees as well as our own employees by identifying and strictly managing risk factors.

Responsible Environmental Management

Various health care activities

- Health care and promotion education
- Anti-smoking, exercise, drinking, nutrition, stress management, etc.
- CPR (cardio-pulmonary resuscitation) education
- General and special medical examination
- Emergency rescue drill in a closed space
- Harmful factor survey on work that puts stress on the musculoskeletal system
- Working environment measurement

Risk management

We are preventing accidents by identifying, resolving, and managing risk factors including strict safety inspection on all facilities, safety supervision over dangerous work, and operation of the in-house safety committee.

Securing the ability to manage chemicals and respond to emergencyemergencies

We are providing regular chemical handling education to our employees. We are responding to emergency cases with spill ponds for leak prevention, chemical leak monitoring systems, foam fire extinguishing trailers, personal protective gear, and accident prevention items. In addition, we are strengthening our ability to respond to emergency by jointly conducting a fire drill (response and evacuation) with a fire station.

Yuhan Chemical considers the environmental impact in all API manufacturing processes. We have established a systematic management process in accordance with the global standard Environmental Management System (ISO 14001). We are also sharing our environmental goals and implementation direction with our stakeholders and minimizing environmental impact through continuous investment. We are continuously managing pollutant sources and making every effort for eco-friendly management through compliance with environmental laws and standards, environmental accident prevention activities, and chemical management.

Air pollutant control

We are operating various types of air pollution prevention facilities and maintaining air pollutant generation below the legal limit through regular air quality measurement.

Water pollutant control

Wastewater generated during business activities is first treated at the in-house waste treatment facility and then finally treated at the public wastewater treatment plant of the industrial complex before being discharged to the water system. We are managing and operating our water pollution prevention facilities safely and efficiently in order to treat wastewater generated during production. We prevent water pollutants that may harm human or the environment.

Waste management

We have a waste storage and a liquid waste storage tank and manage waste lawfully and safely through a designated waste treatment company. We are making efforts to increase waste recycling rates and reduce general waste through thorough waste separation.

Employee health care

We are checking our employees' health through the new employee physical examination and general and special checkups. We are also operating regular health care programs to promote employees' health.

Working environment management

We maintain a safe working environment by monitoring hazardous factors through regular working environment measurement. In addition, we are doing our best to make our business sites safer by protecting workers from the risk of chemical leak through engineering measures including facility improvement and managerial measures such as personal protective equipment(PPE).



# ESG Performance

Yuhan Chemical is making efforts for sustainable management in different fields such as environment, society, and governance in order to gain the trust of all stakeholders including its employees, clients, suppliers, communities, and government.



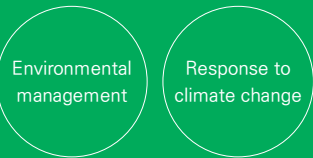


# ENVIRONMENTAL

Yuhan Chemical is making every effort to manage its energy and GHG emissions—which is a current global environmental issue—by reducing the environmental impact and minimizing wastewater, waste, and air pollutants generated during business activities. We will do our best to reduce GHG emissions based on the following practical goals: to acquire the Environmental Management Systems Certification; to comply with the legal standards; to consider investment in high-efficiency, eco-friendly facilities, to enhance the manufacturing process efficiency, and to improve the efficiency of process facilities.



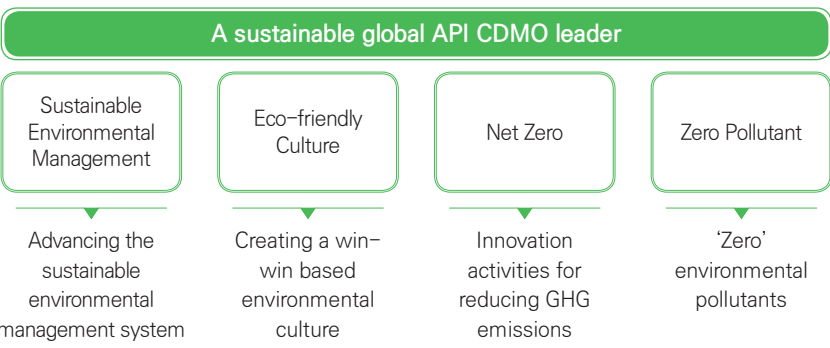
### Materiality Issues



## Environmental Management

Today, businesses all over the world need to respond proactively to the climate crises. Yuhan Chemical is trying to fulfill its social responsibilities sincerely as an eco-friendly company in response to stakeholders' demand for eco-friendly management. To meet such demand, we are conducting environmental management activities including GHG emission management and reduction, energy management, and water resource management.

### Environmental Management Vision & Strategic Goals



### Establishment of an Environmental Management System

#### Environmental Management Policy

Yuhan Chemical is making every effort to minimize the environmental impact and create a safe working environment based on its safety, health, and environment management policy.

#### Safety, health, and environment management policy

1. Value safety, health, and environment before business efficiency and economic feasibility throughout all processes of planning and operating the business.

2. Fully comply with and voluntarily practice laws and regulations associated with safety, health, and environment.

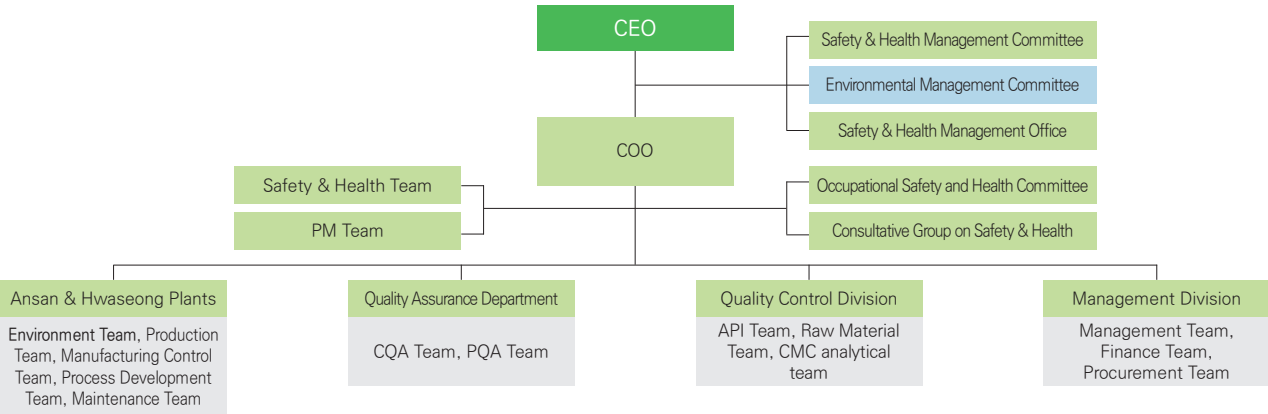
3. Conduct continuous health care activities such as working environment improvement for internal and external stakeholders' health.

4. Contribute to communities and global environmental preservation through eco-friendly production activities including the reduction of pollutants and GHG emissions.
5. Encourage all employees to share their opinions on safety, health, and environment.

6. Keep developing all employees' awareness and competences through effective safety, health, and environment education and training and do our best to cultivate a culture of safety, health, and environment in the company.

7. All employees shall proactively identify hazardous and dangerous factors and practice prevention-centered safety, health, and environment activities to minimize risk.

#### Organization chart of safety, health, and environment management



Environmental Goals and Performances

Yuhan Chemical is subject to the GHG Emissions Target Management System operated by the Ministry of Environment.(Ansan Plant) We achieved the goals for two consecutive years with 66 tCO<sub>2</sub>-eq and 563 tCO<sub>2</sub>-eq reduction by discharging 17,080 tCO<sub>2</sub>-eq and 17,145 tCO<sub>2</sub>-eq under the allowable emission quantity of 17,146 tCO<sub>2</sub>-eq and 17,708 tCO<sub>2</sub>-eq, respectively, in 2021 and 2022. The allowable emission quantity of 2023 is 17,400 tCO<sub>2</sub>-eq. We have been making every effort to reduce GHG emissions, and the goal for the year is expected to be achieved as well. Although energy consumption was on the rise until 2021, it began to show a decrease in 2022.

**❶ Reduction of GHG emissions**  
We will reduce GHG emissions through regular inspection on stream traps and pressure-reducing valves.

**❷ Investment in new and renewable energy production**  
We are considering the installation of new and renewable energy production facilities such as solar panels.

**❸ Reuse of high-temperature condensate water**  
We will reduce the GHG emissions generated during condensate water treatment and

hot water production by reusing high-temperature condensate water.

**❹ Power consumption reduction**  
We replaced electric lights with the less power-consuming LED lights in our production facilities, which resulted in a 539,121kWh power consumption reduction annually. In addition, we introduced the PFMS (production facility management system) to monitor all facilities currently in operation. We are making every effort to prevent energy from being wasted by unnecessarily operating facilities.

Environmental Management Certification  
Environmental Management System

Yuhan Chemical has acquired the international standard ISO 14001. To manage environmental risks efficiently, regular certification evaluation (every three years) and follow-up management evaluation (every year) are conducted by an external independent body. In addition, we are reducing environmental risks through environmental impact review and assessment on our business activities. We are doing our best to minimize environmental impact by systematically identifying, evaluating, managing, and improving environmental elements based on our environmental management system.

Environmental Education

Yuhan Chemical provides a variety of environmental education programs so that all employees can comply with the environmental acts and participate in environmental improvement activities as the main agent of environmental management. We realized that the amount of industrial water used in the business sites is increasing ever year, which resulted from on-site water wastage as well as growing water use due to the increase in production. To resolve this issue, we are providing education to raise awareness of water use.



Education on water saving and water wastage by human error (provided by the Environment Team)

Responses to Climate Change

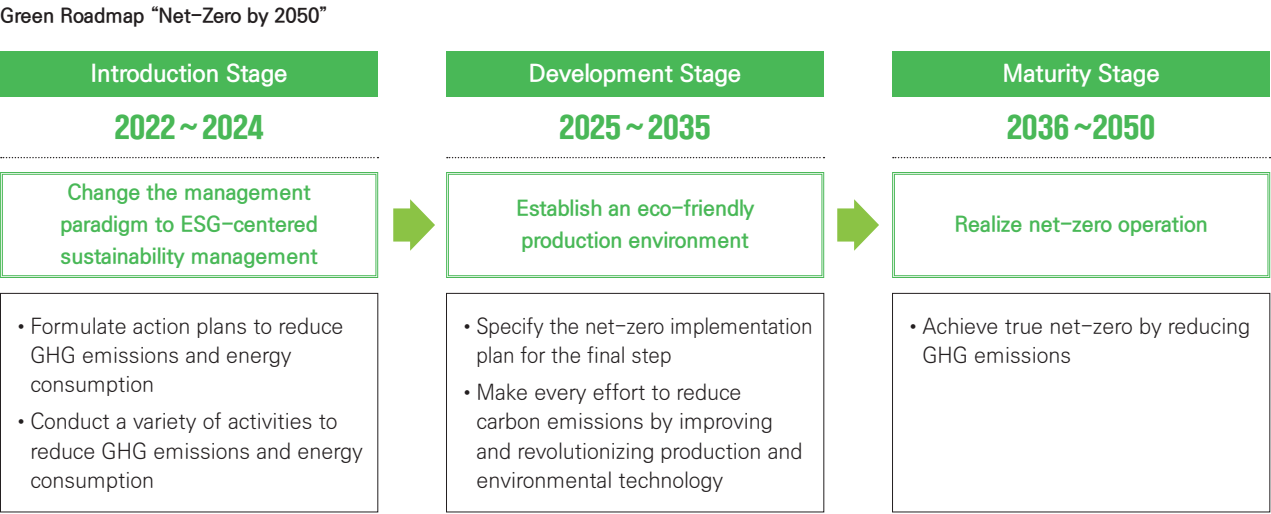
Today, businesses all over the world need to respond proactively to climate crises. Cognizant of our social responsibilities with regard to environmental protection, we are conducting a variety of environmental management activities such as GHG emission reduction, energy conservation, water use reduction, and waste recycling.

Establishment of a Climate Change Response System

The mandatory reporting of carbon emissions are expanding to businesses all over the world. Yuhan Chemical needs to establish a proactive management system as an API manufacturer subject to the GHG Emissions Target Management System. The Korean government is now responding more proactively to climate change by suggesting the carbon dioxide reduction goal through the 2050 Carbon Neutrality Scenario and Long-term Low Emissions Development Strategies (LEDS). In keeping with the current trend, we will achieve the reduction target through continuous GHG emission monitoring and gradually strengthen domestic suppliers' duty of mandatory reporting of carbon emissions.

Mid- and Long-term Green Roadmap “Net-Zero by 2050”

Yuhan Chemical is preparing for the next 30 years based on the Green Roadmap to realize its environmental management vision.



Yuhan Chemical will formulate and implement its environmental goals and action plans in the introduction stage (2022-2024). We conduct a comprehensive evaluation on our climate-related risks and opportunities, taking into consideration the GHG emissions, energy consumption, water quality management, air pollutants, waste management, etc.



Environmental goals and action plans

Goal	Action Plan	Target
Effort to reduce GHG emissions	GHG emission control by reinventing the manufacturing processes and improving production management with high-efficiency facilities	Reducing electric energy consumption by 2% from the BAU level (Electric power consumption to production)
	Raise employees' awareness of the seriousness of global climate change and energy consumption through education	Establish the Green Culture Education Program for all employees
Effort to reduce environmental pollutants	Effort to reduce air pollutants • Installation of RTOs to reduce air pollutants • Replacing the consumables of air pollution prevention facilities at regular intervals	Maintaining air pollutants below 50% of the permissible emission levels set by the domestic regulatory body
	Effort to reduce water pollutants • Improving environmental pollution prevention technology and realizing high efficiency • Installation of water pollution prevention facilities	Maintaining water pollutants below 50% of the permissible emission levels set by the domestic regulatory body
	Effort to reduce waste • Developing systematic methods to minimize waste generation during production (Methods that do not decrease productivity)	Reducing waste generation by 2% from the BAU level (Waste generation to production)
	Maintaining the ISO 14001-certified system	Renewing the ISO 14001 certification
Recycling of industrial waste	Increasing the industrial waste recycling rates • Developing and improving waste management procedures and methods	Maintaining recycling rates at 70% at least

GHG Emissions Management and Reduction

Yuhan Chemical is well-aware of the need for global cooperation to cope with climate change, severity of climate change, and appropriateness of strengthened responses. In keeping with such trend, we proclaimed and established the net-zero goal by 2050. Nowadays, the transformation into a low-carbon society and establishment and implementation of corporate climate change response strategies to realize a sustainable carbon-neutral economy are becoming increasingly important. By 2024, we will reduce electric energy consumption to production by 2% from the BAU level.

GHG emission reduction plan

Direct GHG emissions (Scope 1) from Ansan Plant and Hwaseong Plant and indirect GHG emissions (Scope 2) from the electric power consumption of Ansan Plant are the major GHG sources of Yuhan Chemical. To disclose our business risks and opportunities, we will voluntarily analyze and verify our 2022 GHG emissions (Scopes 1 and 2). We also identify ways to cope with climate change. We are reviewing eco-friendly investments and plans to reduce GHG emissions in order to achieve net-zero by 2050. Although we are not subject to the GHG emission permit trading system, we are preemptively managing and monitoring our GHG emissions.

Energy consumption management

Yuhan Chemical has established an energy conservation plan and continuously monitors its energy consumption for more efficient energy usage. We have already saved 539,121kWh by replacing electric lights with LED lights. We will keep managing and monitoring our energy consumption in 2023.

Energy Management

Energy consumption<sup>1)</sup>

Category	Unit	2020	2021	2022
Total energy consumption	TJ	355.82	362.37	357.14
Energy consumption intensity <sup>2)</sup>	TJ/ton	2.26	2.29	2.63

1) Business site subject to verification: Ansan Plant  
2) Based on Yuhan Chemical's total production

Air Pollutant Control

Yuhan Chemical is operating air pollution prevention facilities in order to comply with the air pollutant concentration and emission limits. We have recently installed regenerative thermal oxidizers (RTOs) at the Ansan Plant and Hwaseong Plant to reduce air pollutants as much as possible.



Regenerative thermal oxidizer (RTO)

Air pollutant control<sup>1)</sup>

Ansan

Category	Unit	2020	2021	2022
Nitrogen oxides(NOx)	ppm	1.3	70.7	12.0
Sulfur oxides(SOx)		1.0	0.7	2.0
Dust	mg/m <sup>3</sup>	0.5	0.3	0.3

Hwaseong

Category	Unit	2020	2021	2022
Nitrogen oxides(NOx)	ppm	25.7	29.3	32.0
Sulfur oxides(SOx)		0.0	1.0	0.0
Dust	mg/m <sup>3</sup>	2.6	0.3	2.8

1) The table shows the maximum emission concentration values. All the business sites meet the permissible emission levels stated in the Clean Air Conservation Act of the Republic of Korea.

Water Pollutant Control



Waste treatment plant

We always keep water pollutant concentration levels and discharge amounts below the legally allowable limits. We strictly manage water pollutants to maintain concentration levels and discharge amounts below 10% of the legally allowable limits. Waste solvents generated during production or by the laboratories are separately kept in the waste solvent tank and treated by a waste treatment company so as to minimize the organic amount of wastewater and prevent waste solvents from going into the waste treatment plant.

Improvement in water pollutant treatment facilities

Yuhan Chemical enhances the efficiency of water pollutant treatment by improving its water pollutant treatment facilities and using high-efficiency biological treatment technology.

Water pollutant control

Ansan

Category	Unit	2020	2021	2022
Biochemical oxygen demand(BOD)	kg	1,073	358	225
Total organic carbon(TOC) <sup>1)</sup>		3,354	1,475	609
Suspended solids(SS)		1,848	660	690
Total nitrogen(T-N)		1,530	2,111	2,626
Total phosphorus(T-P)		73	211	20

Hwaseong

Category	Unit	2020	2021	2022
Biochemical oxygen demand(BOD)	kg	98	291	953
Total organic carbon(TOC) <sup>1)</sup>		222	553	636
Suspended solids(SS)		77	320	399
Total nitrogen(T-N)		41	155	125
Total phosphorus(T-P)		1	3	1

1) The TOC standards apply from 2022. COD applied before 2022. (TOC: Total Organic Carbon / COD: Chemical Oxygen Demand)

# SOCIAL

To ensure a sustainable supply chain, Yuhan Chemical is building strong relationships by applying global supply chain principles in accordance with the fair transaction-related act and voluntary compliance program. In addition, we are making every effort for our employees' wellbeing by creating a diversity-based culture so that talented individuals can demonstrate their abilities based on digital corporate culture and human rights management.



## Materiality Issues



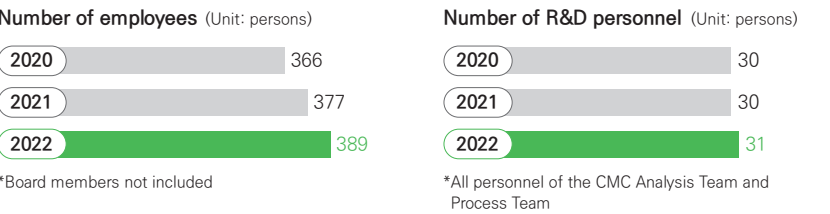
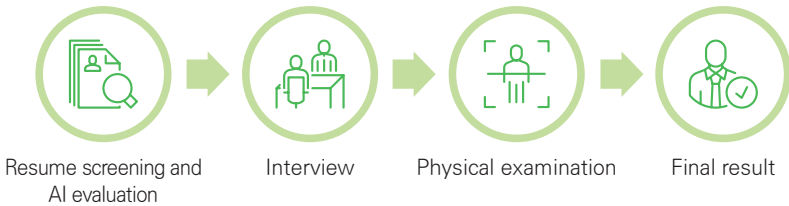
## Cultivation of talented individuals

### Recruitment of Talented Individuals

Cognizant of the importance of securing and cultivating talented individuals who will lead innovation and change, Yuhan Chemical is operating a variety of educational programs to develop their expertise and leadership. We will do our best to develop more professional talented individuals in a systematic way in order to realize our ideal talent: those with a sense of purpose and a proactive attitude, future-oriented, adventurous individuals, and those with the right sense of values and a positive attitude.

Yuhan Chemical employs talented individuals through fair and transparent open recruitment based on the spirit of integrity and honesty. The entire recruitment process is conducted fairly and transparently within our advanced recruitment information system. Both applicants and evaluators can access information through the system. Applicants will be notified of the result individually by e-mail and text message or via the website. We do not discriminate against applicants on grounds of gender, nationality, race, etc. We provide fair opportunities for all applicants. In addition, we employ persons with disabilities and persons entitled to veterans benefits without discrimination in order to enhance employee diversity.

#### Recruitment procedure



#### Recruitment through industry-academe cooperation

Yuhan Chemical participates in the Uni-Tech Job-Learning Project<sup>1)</sup> of the Ministry of Employment and Labor and provides systematic HR development programs in collaboration with specialized high schools and Yuhan University. Through this project, we cultivate and employ talented individuals with theoretical and practical expertise required for API manufacture and quality unit.

Category	Learning period	No. of persons	Recruitment	Notes
1st	Mar. 2017 – Aug. 2019	6	2 in 2019 2 in 2020	The year of recruitment varies due to male participants' military service period and exemption from military service.
2nd	Mar. 2018 – Aug. 2020	3	4 in 2021 1 in 2022	
3rd	Mar. 2019 – Aug. 2021	2	2 in 2023	

<sup>1</sup> An integrated education project for employment guarantee for high school students and junior college students. Enterprises employ students as student employees to cultivate talented individuals with practical competences and provide customized systematic training (for 2 or 3 years). After the training, trainees may be employed by the enterprises through competence evaluation.



Cultivation of Talented Individuals

Yuhan Chemical is operating a variety of educational programs to develop future leaders and ensure unrivaled competitiveness for win-win growth among employees. Professional instructors are providing employees with high levels of education such as common education, English, job training, and leadership education. We will keep improving our educational programs both qualitatively and quantitatively by offering new programs in line with the current trend and improving preexisting programs based on feedback from employees so that they can learn practical expertise and draw satisfaction from educational contents.

Education system

Category	Common education				English		Leadership		Job competence			New employees		
Executives	Compulsory legal education	Workplace etiquette education	Special lecture	Full-time native instructor	Video English lesson	English lesson by phone	E-learning and book-based English	Executives' leadership	New executives	E-learning and book-based program	License acquisition	External education	In-house training	
Team leaders								Manager leadership						
Level 1														
Level 2														
Level 3								Middle manager leadership						
Level 4 or lower	Self-leadership		New employee training											

Culture of free-use of leave

Yuhan Chemical encourages its employees to take leaves other than basic holidays. We provide a greater number of days of leave than the mandatory days of leave set under the law. We also provide longer mandatory summer and winter holidays than other companies. Employees can freely take leaves as they want.

Employees' leave taken

Category	Unit	2020	2021	2022
Number of days of leave taken per person	No. of days	11.9	10.5	11.5

Human Rights Management

Yuhan Chemical upholds and supports human rights-related international standards such as the UN Guiding Principles on Business & Human Rights, the OECD Guidelines for Multinational Enterprises, and the ILO Declaration on Fundamental Principles and Rights at Work. Succeeding founder Dr. Il-han New's management philosophy of "All employees are in a single group sharing a common destiny" we established our own human rights management system to protect the human rights of all stakeholders including our employees based on a corporate culture of respect for human beings.

Human Rights Education



Workplace harassment prevention education

We established the "Yuhan Chemical Human Rights Policy" on January 1, 2017, and we are making every effort for its systematic management. Yuhan Chemical provides human rights education once a year to protect the human rights of employees and raise their awareness of human rights, individuals with disabilities, sexual harassment prevention, and workplace harassment prevention. We are encouraging all of our employees to complete the educational programs.

Category		Unit	2020	2021	2022
Workplace harassment prevention	No. of target employees	Persons	366	377	389
	Completion rate	%	100	100	100
Sexual harassment prevention	No. of target employees	Persons	366	377	389
	Completion rate	%	100	100	100
Raising awareness of people with disabilities	No. of target employees	Persons	366	377	389
	Completion rate	%	100	100	100

\*As of the end of each year

Work-Life Balance

Yuhan Chemical complies with the legal working hours to maintain the work-life balance of employees and to maximize work efficiency. We are operating flexible work schedule programs including flexible work hours, flexible holiday work schedule, comp time system, and flexible working system.

Flexible work schedule programs used by employees

Type	Unit	2020	2021	2022
Flexible work hours	Cases	171	71	73
Flexible holiday work schedule		96	55	57
Comp time system		66	57	40
Flexible working system	Persons	2	2	5

Maternity Protection

Yuhan Chemical is protecting maternity through a variety of support programs in order to increase the number of female employees and prevent their career interruption due to pregnancy, childbirth, and child rearing.

Category	Unit	2020	2021	2022
Total No. of employees	Persons	366	377	389
Percentage of female employees	%	11	11	10
No. of parental leaves taken	Cases	2	3	2
Percentage of employees reinstated after parental leave	%	100	100	100



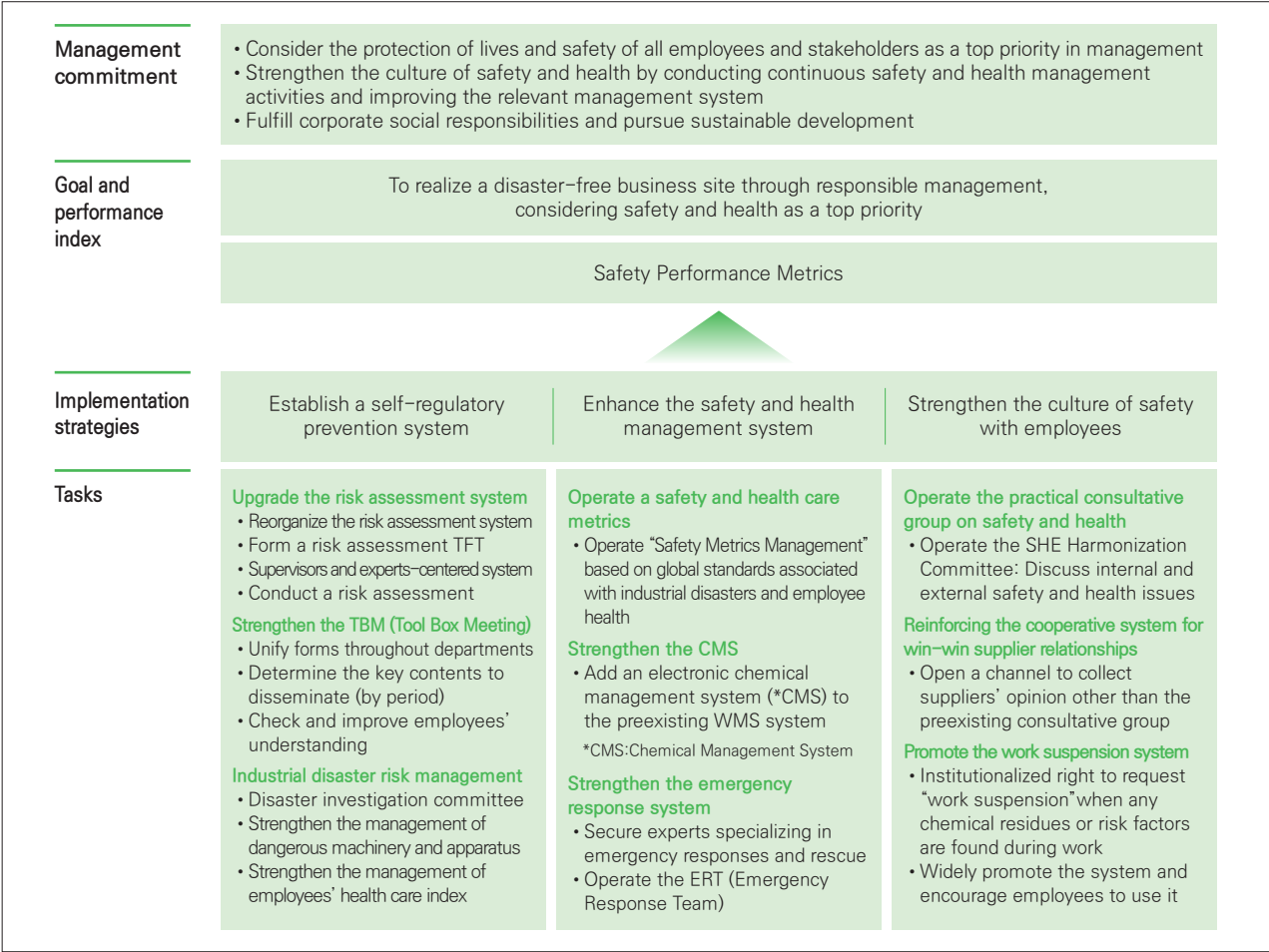
Safety and Health

Safety & Health Management

Yuhan Chemical is applying strict standards to protect the lives and safety of its employees and stakeholders. We are strengthening the culture of safety and health by conducting continuous safety and health management activities and improving the relevant management system.

Yuhan Chemical has a well-organized system for world-class safety and health management. Based on this system, we can practice safety and health management consistently. In addition, we are improving the system through continuous inspections. We always put safety first in management in order to respond proactively to strengthened laws and safety and health management risks. We are also doing our best to prevent severe industrial disasters through preemptive safety and health care activities. We are pursuing coexistence and cooperation based on sustainable win-win growth by strengthening the enterprise-wide safety and health management system and helping our suppliers develop their safety and health management competences. Based on our safety and health management goal of “practicing responsible management by putting safety and health first,” we systematically manage the safety of our employees, suppliers’ employees, and visitors through a world-class occupational health and safety management system (ISO 45001).

Safety and health goal and implementation strategies



Supervisors' meeting



Occupational Safety and Health Committee's meeting

Communication on occupational safety and health

To prevent risk and disasters for employees, Yuhan Chemical is operating the Occupational Safety and Health Committee that deliberates on and decides safety and health-related matters. Given the growing demand for enterprise-wide participation in and attention to compliance with the strengthened safety, health, and environmental regulations, we are operating the SHE Harmonization Committee for internally discussing and sharing SHE issues. Our labor and management will make efforts together to create a safe, healthy working environment.

No. of members	12 (6 employee representatives and 6 employer representatives)
Items	Formulation of an industrial disaster prevention plan Establishment of safety and health management regulations Matters concerning safety and health education Discussion on inspection and improvement of the working environment including working environment measurement Matters concerning health care such as employees' medical examinations Investigation into the causes of industrial disasters, establishment of recurrence prevention measures, etc.
Activity	Hold a meeting every quarter (with participation by the CEO)

SHE Harmonization Committee: A practical consultative group on safety, health, and environment



Work and facility risk prevention activities

Chemical risk assessment

We conduct a chemical risk assessment to identify chemical risk factors such as raw materials, gases, steam, and dust and to protect employees' health based on the assessment result. We have developed a risk assessment technique called Y-CHARM<sup>2)</sup>, and we have been conducting an assessment every year. We prevent and predict potential risks and create a safe working environment through risk assessment result-based education.



Chemical risk assessment result-based education

Installation of fall prevention facility

We installed safety facilities to prevent workers from falling from buildings or structures during work on a tank lorry or pipe rack maintenance work. We ensure safety through maintenance work and regular inspection on fall prevention facilities.



Fall prevention facility installed

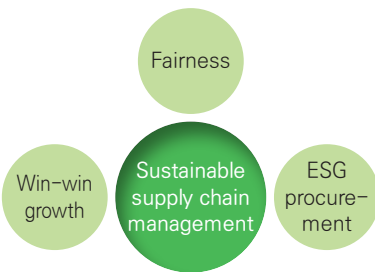
2 Y-CHARM: A modified risk assessment tool based on CHARM (Chemical Hazard Risk Management) developed by the Korea Occupational Safety and Health Agency (KOSHA) and internal criteria of Yuhan Chemical



# Supply Chain Management

The goal of Yuhan Chemical is to grow with its suppliers by raising awareness of ESG values including ethics, labor, human rights, safety, health, and environment and to develop its supply chain management competences. To achieve this goal, we are maintaining a close cooperative relationship with our suppliers and conducting a variety of policies to fulfill our social responsibilities. We conduct practical and helpful support activities for our suppliers by selecting and evaluating sustainable suppliers and determining strategic tasks for win-win growth based on voluntary fair transactions, trust, communication, changes, innovations, and spirit of sharing a common destiny.

## Yuhan Chemical’s Supply Chain Management Policy



Suppliers’ sustainable supply chain management

### Principle of selecting new suppliers

Yuhan Chemical puts out a fair competitive tender when selecting new suppliers, believing that it is essential to secure the sustainability of the supply chain for complete quality management. We consider their sustainability as well as economic aspects for ESG risk management, competence development, and win-win management.

### Sustainable supply chain management

Yuhan Chemical is carrying out a systematic supplier management procedure for win-win growth. All transactions are fairly and transparently made on equal footing in an open everyday workplace.

## Fair Transactions

Yuhan Chemical neither demands money, goods, etc. nor makes unreasonable demands such as forcing unfair transaction conditions or interfering in suppliers’ management by using its prominent position. We make efforts to create an advanced transaction environment and select and do business fairly and transparently through our electronic procurement and tendering system.

### Expansion of ESG procurement

We comply with our eco-friendly procurement policy by increasing the purchase of eco-friendly goods and preferentially purchasing products from suppliers complying with environmental laws and pursue a sustainable future. When selecting a new business partner or a supplier, we give preference to enterprises complying with our ethics policy and respect human rights. We are devoting ourselves to establishing a diverse, comprehensive supply chain.

### Win-win growth

Yuhan Chemical has established a policy for win-win growth with suppliers to strengthen the competitiveness of its supply chain. Based on this, we are making efforts to create a sustainable supply chain. We comply with labor practices during manufacture and human rights protection policies so as to expand cooperation with our suppliers. We are continuously making efforts for win-win growth.

### Win-win growth policy

Technical cooperation	We visit and inspect our suppliers at regular intervals to maintain a uniform quality of ingredients and products.
Education	We provide education for win-win growth, communication, and creation of shared values upon the request of our partners or suppliers. We are making efforts for win-win growth.
Continuous communication with suppliers	For close communication with suppliers, we hold a meeting with major suppliers once or twice a year and listen to their difficulties and proposals.

## Selection and evaluation of a sustainable supply chain

Yuhan Chemical is making effort to build a strategic partnership with outstanding suppliers based on mutual trust. For this, we are operating the supplier registration system based on a fair, transparent process. In addition, we are developing their competitiveness and minimizing risk through annual evaluation.

### Supplier evaluation process

Annual self-evaluation	Self-improvement	Evaluation	Follow-up management
Suppliers conduct a self-evaluation with Yuhan Chemical’s sustainability evaluation items.	Suppliers find out their issues to improve, and Yuhan Chemical provides risk monitoring.	Suppliers are notified of the final result at the end of the year.	Suppliers formulate and implement an improvement plan and Yuhan Chemical assists them.

## Effort by Yuhan Chemical for the Sustainability of its Global Supply Chain

As an API manufacturer supplying essential drug ingredients to global pharmaceutical companies, Yuhan Chemical is trying to realize its clients’ visions and goals of contributing to human health and protecting the environment. We are continuously making every effort towards this common goals. As part of our efforts, we inspect and improve our sustainability maturity through regular audits and evaluations.

For the past couple of years, we have been audited based on the PSCI (Pharmaceutical Supply Chain Initiative) Audit Framework as an initiative to enhance the sustainability of the global health care supply chain. In addition, we obtained the Silver Grade from the corporate sustainability evaluation agency EcoVadis in 2022, which shows our higher level of sustainability management than other enterprises. Joined by numerous global pharmaceutical companies, PSCI has gained recognition for its public confidence. We will preemptively respond to the ESG risks of our suppliers and strengthen our supplier value chain.



# Information Protection

## Information Protection Policy

Yuhan Chemical is doing its best to prevent customers' personal information breaches and to protect our intellectual property rights as the essence of our R&D competences. We are inspecting potential risks at regular intervals through our information protection management system. Information protection issues are reported to the consultative group's meeting participated in by top executives. When any unexpected information breach or leak occurs in spite of our thorough information protection management, we take action in accordance with the prescribed procedure and guideline.

Based on our information protection policy, we have established and implemented an information protection management system that satisfies the requirements of KS X ISO/IEC 27001(2014). We meet clients and stakeholders' demand for information protection.

1. Compliance with information protection based on the information protection management system
  2. Compliance with information protection acts, policies, and standards
  3. Prevention of industrial technology leak and protection of technical information
  4. Compliance with the Personal Information Protection Act and the Act on the Protection of Information and Communications Infrastructure
  5. Designation of personnel with independent authority in charge of information protection
  6. Information protection goal management and continuous development of the information protection system

## Establishment of Information Protection System

Yuhan Chemical is making efforts to minimize information protection breaches and strengthening its ability to protect customer information. To achieve this, we will establish a global information protection management system and enhance the transparency of information management from the mid to long-term perspective. To protect our key industrial technology information from cyber threats and hackers, we are continuously conducting a variety of information protection activities and following the six information protection goals.

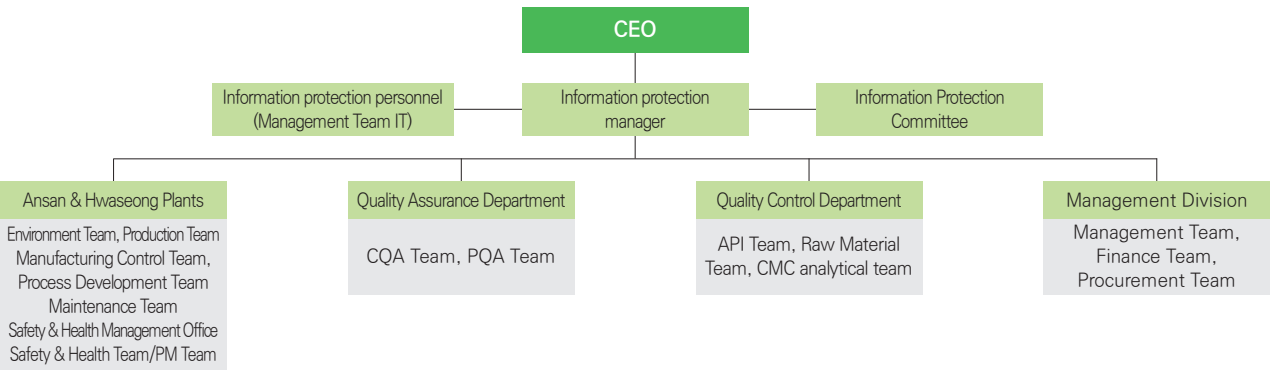
## Information Protection Goals

The goal of Yuhan Chemical's information protection system is to protect corporate assets effectively and safely by controlling information leak routes and specifying supervisors' roles and authorities and security procedures for the necessary security action to be taken. We conduct information protection activities that meet the requirements of international standards and reflect the requirements of ISO 27001 (Information Security Management Systems) in order to strengthen our IT security control system and protect external data. In May 2023, we acquired ISO 27001 Certification. In addition, we are identifying information security risk factors to avoid such risks. As our internal systems are transformed into cloud, we will establish a suitable security system. Lastly, we will provide a variety of information security education programs to raise employees' awareness of security.

## Information Protection Management System

Yuhan Chemical takes technical, managerial, and physical measures to secure information security and safety. We keep our business sites safe from external attacks or threats such as intrusion into our operating systems and information leak. In addition, we are continuously conducting security breach prevention activities.

Information protection organization chart



Certificate of information security management system (27001)

## Establishment of information protection incident response system

Yuhan Chemical is following its system and procedure to detect, respond to, analyze, and share internal and external breach attempts so as to prevent security incidents and personal information leak and respond to such incidents swiftly and effectively.

## Information protection incident prevention process

We reinforced our internal security by establishing diverse security solutions and systems as a preemptive response to cyber terrors and information leaks. We have been implementing the information protection management system we established.



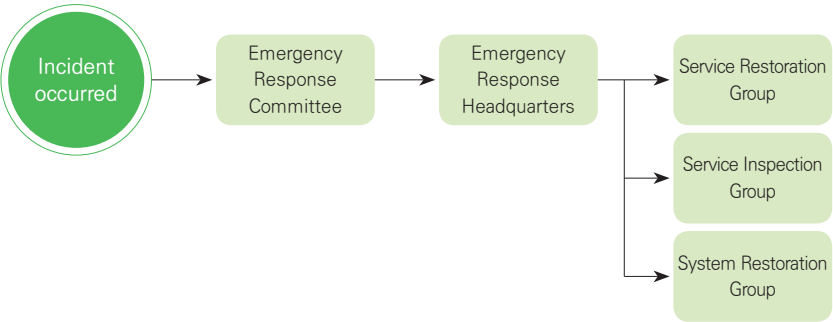
## Disaster Recovery Drill



IT disaster recovery drill

## Disaster recovery procedure

Yuhan Chemical has a group that operates an IT disaster recovery plan in both ordinary times and in case of an emergency. We follow systematized procedures to operate the disaster recovery system, resume work based on the disaster recovery system by disaster level (by disaster type), and restore the system. We conduct a disaster recovery drill every year to realize 100% data integrity and reduce the RTO (Recovery Time Objective).



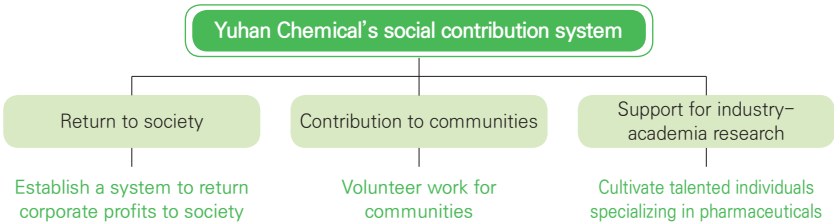


Social Corporate Responsibility

Social Corporate Responsibility Strategy

Social Corporate Responsibility philosophy

Inheriting Dr. Il-han New’s foundation philosophy of “Corporate profits should be returned to society,” Yuhan Chemical is making efforts to share its corporate values with society. Yuhan’s social contribution system was established based on the donation by Dr. Il-han New of his entire possessions to society. Based on this system, part of corporate profits are used for our non-profit foundations (Yuhan Foundation and Yuhan School) through stable annual dividend income. With the Yuhan Group’s foundation philosophy and under the corporate vision, we will take the lead in voluntary work by implementing a wide range of social contribution projects and cultivating talented individuals who can contribute to society.



Yuhan Chemical is conducting social contribution activities to realize social values and coexist with communities. We are fulfilling our social responsibilities faithfully based on the foundation philosophy of Dr. Il-han New by operating a variety of programs with the underprivileged, local social enterprises, schools, etc.



Kimchi sharing



Sisterhood Sponsorship agreement

Kimchi sharing

In January 2022, Yuhan Chemical participated in Kimchi sharing hosted by the Ansan Volunteer Service Center. We delivered 1,120 boxes of kimchi to the underprivileged, welfare centers, and social welfare facilities. We will gradually expand our social contribution activities for communities in order to inherit Dr. Il-han New’s foundation philosophy and fulfill our social responsibilities and roles faithfully.

One-on-one sponsorship agreements for centers for senior citizens

In October 2022, Yuhan Chemical concluded a one sponsorship agreement for centers for senior citizens with the Gyeonggi Ansan Smart Hub Resource Circulation Council. To spread the culture of sharing and conduct corporate social contribution activities, we partnered with a center for senior citizens and donated rice and other items. Attending the sponsorship agreement ceremony held by the Smart Hub Resource Circulation Council, we promised to provide continuous support for senior citizens’ health and care.

Sponsorship through the Coal Briquette Bank

Yuhan Chemical is helping the underprivileged through the Bapsang

Community Coal Briquette Bank. In Korea, approximately 90,000 households are still using coal briquettes for heating. Among them, over 80% are underprivileged such as lower-income families and seniors living alone. We will continue our volunteer work and donation so that lower-income senior citizens and neighbors can stay warm during winter.

Participation in the Good Consumption Company Campaign

To fulfill its social responsibilities sincerely, Yuhan Chemical is proactively practicing ESG management. As part of such efforts, we participate in the Good Consumption Company Campaign of Korea Red Cross and donate part of our profits to communities every month. Yuhan Chemical joined the Good Consumption Company Campaign in February 2023. We expect our donations to be used honestly and transparently for neighbors in need.



Participation in the Good Consumption Company Campaign



Industry-academia program support meeting

Industry-academe cooperation programs

As an affiliate of the Yuhan Group, Yuhan Chemical concluded an industry-academia cooperation agreement with Yuhan University. Working with Yuhan University, we are making effort to provide differentiated job training and education programs. As part of the Industry-Academia Project for Cultivating Industrial Fine Dust Reduction and Chemical Management Experts of the Ministry of Science and ICT, Yuhan Chemical has been operating an industry-academia cooperation program with the Inha University Graduate School of Environmental Safety Convergence since 2021. In line with the tightened environmental safety regulations and requirements, we select relevant tasks every year with graduate school researchers and utilize the result. We tell future talented individuals on-site stories and provide career counseling to help them become chemical experts. In addition, we provide various types of support such as a company tour for future chemical experts.

Category	Name of project	Result	Application	No. of participants (Graduate students)
2021	Systematization of the selection of personal protective gear and containment system based on the characteristics of chemicals and processes	Suggested direction of chemical risk assessment	Development of Yuhan Chemical's Chemical Risk Assessment (Y-CHARM)	4
2022	Systematization of categorization and scope selection of locations at risk of explosion	Established the method and foundation for distinguishing locations at risk of dust explosion based on domestic and international standards	Establishment of procedure for categorizing and managing locations at risk of dust explosion	5

# GOVERNANCE

Yuhan Chemical has been practicing transparent management based on Dr. Il-han New's foundation philosophy of "Corporate profits should be returned to society." In addition, we have been fulfilling our social responsibilities based on the belief that corporate competitiveness comes from compliance management and ethics management. We provide compliance and ethics management education to prevent employees' unethical acts. We are strengthening our compliance and ethics management by acquiring Anti-bribery Management System (ISO 37001) certification and conducting regular and frequent audits.



### Materiality Issues



## Ethics and Compliance Management

The foundation of Yuhan Chemical's corporate culture is ethical management activities and compliance management based on Dr. Il-han New's foundation philosophy. We continuously create new corporate values, fulfill our social responsibilities faithfully, and make efforts for cooperation with our stakeholders including clients, shareholders, and suppliers. We have established Yuhan's ethics policy.

### Code of ethics and related practice guideline

Yuhan Chemical's Ethical Norms are a general action guide that helps employees resolve various types of potential ethical issues based on their pride and ethical values.

### Guideline for the practice of ethics policy

**Chapter 1. Responsibility and duty for customers**  
Make efforts for customer satisfaction by creating customer values, respecting customer opinions, and providing the best products and services

**Chapter 2. Responsibility and duty to shareholders**  
Protect the rights of shareholders and gain their trust by maximizing corporate values

**Chapter 3. Guideline on suppliers**  
Comply with the principle of market competition and pursue fair and transparent transactions, mutual trust, coexistence, and win-win development

**Chapter 4. Fair competition and compliance with the law**  
Comply with laws and social ethics and promote mutual development and competition in good faith

**Chapter 5. Responsibility for the state and society**  
Comply with laws, fulfill our duties faithfully, conduct eco-friendly management activities, and practice sustainability management by returning corporate profits to society

**Chapter 6. Employees' basic ethics and performance of duties**  
Develop the corporate image of integrity, comply with the principle, and pursue fair and transparent transactions, mutual trust, coexistence, and win-win development

### Principles of Ethical Management



Anti-bribery Management System (37001) certificate

### Principles of Compliance Management

With the CEO's iron will, Yuhan Chemical is practicing compliance management as a top-priority task. In 2023, we were certified for the Anti-bribery Management System (ISO 37001) also known as the international-standard internal control management system in order to eliminate corruption risk associated with our business. All employees of Yuhan sign a pledge of compliance with compliance management and do their best to raise their awareness of anti-corruption and compliance management. With high standards of ethics, we are making efforts to practice compliance management in our daily lives.

### Anti-corruption policy

Yuhan Chemical has established an anti-corruption policy and has resolved on practicing it in order to fulfill its social responsibilities faithfully and gain the trust of the people and stakeholders through fair and transparent management.



Basic Ethics among Employees

Creation of a pleasant working environment	Fair performance of duties	Management and protection of corporate assets
<ul style="list-style-type: none"><li>• Use proper language and maintain high standards of dignity and personalities in all conducts</li><li>• Avoid speculative acts between employees</li><li>• Avoid improper solicitation and graft between employees</li></ul>	<ul style="list-style-type: none"><li>• Perform your duties fairly, being well-informed of laws and regulations</li><li>• Respect individuals' autonomy and creativity and provide equal opportunities</li><li>• Fair evaluation and rewards on the basis of rational evaluation standards</li></ul>	<ul style="list-style-type: none"><li>• Keep your personal and professional lives separate and make efforts to protect corporate assets</li><li>• Comply with the safety rules and make efforts to protect corporate confidentiality</li><li>• Do your best to resolve the situation in case of emergency or disaster</li></ul>



ISO 27001 and ISO 37001 certificate presentation ceremony

Grievance handling process

Yuhan Chemical handles employees' grievances through its employee communication channel. Through the anonymous communication channel operated to protect our employees, we collect their opinions and get tip-offs about grievances requiring legal protection, workplace harassment, sexual harassment, and other matters.

Duty to report unethical acts and protect whistleblowers

<ol style="list-style-type: none"><li>1. When any unethical act in violation of laws or in-house regulations or rules is detected, report to am senior supervisor or tip it off via the unethical act reporting channel.</li><li>2. The Company shall review the tip-off immediately and take proper action so as not to hinder the Company and individuals' interest. Information about the 'informer's identification and the details of the report shall be kept confidential.</li><li>3. Informers shall not be penalized for any disadvantage due to their tip-offs.</li><li>4. See below for information about the unethical act reporting channel. <a href="https://www.yuhanchem.co.kr/introduction/ethics.jsp">https://www.yuhanchem.co.kr/introduction/ethics.jsp</a></li></ol>	
<u>Matters subject to report</u>	<ul style="list-style-type: none"><li>• Employees' illegal or unfair way of handling work including violation of the code of ethics</li><li>• Employees embezzling or misappropriating company funds or receiving money, goods, etc.</li><li>• Act of making unfair profits, taking advantage of corporate assets and information in an inappropriate way</li><li>• Misconduct or violation of the internal accounting management regulations</li></ul>
<u>How to report</u>	<ul style="list-style-type: none"><li>• Internet: Yuhan Chemical website → Business Ethics → Report</li><li>• E-mail: Enter your personal e-mail address if possible.</li><li>• Address: Yuhan Chemical Internal Accounting Department, 45 Jiwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea (Seonggok-dong)</li></ul>
<u>Contact</u>	<ul style="list-style-type: none"><li>• Head of the Management Division : Direct line: 031-488-5814 / Fax: 031-499-4115, E - mail: kim-sung-tae@yuhanchem.co.kr</li><li>• Management Team Leader : Direct line: 031-488-5818 / Fax: 031-499-4115, E - mail: shin-jong-gyun@yuhanchem.co.kr</li></ul>

No. of grievances handled

Category	Unit	2020	2021	2022
No. of grievances	Cases	5	2	5
Settlement rate	%	100	100	100

Transparency of BOD

Composition and roles of BOD

Since its foundation, Yuhan Chemical has been practicing its corporate business philosophy – “production of the best APIs,” “honest tax payment,” and “return of corporate profits to society.” Major business decisions are made after consultation with the Board of Directors (BOD) and management. We established a foundation wherein management experts can practice rational and responsible management. As of June 2023, the Yuhan Chemical Board of Directors consists of four members: two executive directors, one non-executive director, and one auditor.

Governance

Category		Unit	2020	2021	2022
Composition of the BOD	Executive director	Persons	2	2	2
	Non-executive director		1	1	1
	Auditor		1	1	1
No. of BOD meetings held		Times	9	7	6

Composition of the BOD

(as of Jun. 2023)

Category	Name	Current position	Gender	Date of initial appointment
Executive director	Seo Sang-hun	Yuhan Chemical CEO & President	Male	2018.03.31
	Park Myeong-yong	Yuhan Chemical COO	Male	2021.03.31
Non-executive director	Paul Shin Myung-Chul	Managing Director Head of Overseas Business Division, Yuhan Corporation	Male	2021.03.31
Auditor	Kim Jae-yong	Head of Yuhan Corporation's Planning & Finance Division	Male	2021.03.26

Operation of the BOD

The BOD regulations stipulate that Yuhan Chemical hold a regular BOD meeting every quarter and a special BOD meeting whenever needed. In 2022, a total of six BOD meetings were held. The average attendance rate was 100%, and the attendees deliberated on and resolved major management issues including the approval of financial statements, new investment, and a loan capital for operation and facilities and introduction and systematization of ESG management.

BOD remuneration

The articles of incorporation stipulate that the BOD remuneration shall be determined through a general meeting of shareholders. The BOD remuneration is decided by taking into consideration the size of the Company and the BOD remuneration of the same or other similar industries, not exceeding the limit approved during a general meeting of shareholders.

Shareholder composition

(as of Jun. 2023)

Shareholder	No. of shares (common stocks)	Share
Yuhan Corporation	7,000,000	100%

## Securing a Future Growth Engine

As an active pharmaceutical ingredient (API) CDMO based on organic synthesis technology, Yuhan Chemical has successfully passed the initial inspection by the US FDA in 2002. Starting with the export of contract manufacturing products to a global pharmaceutical company based in the US in 2004, our business has been growing every year, expanding our clientele to many global pharmaceutical companies. In order to achieve our corporate goal of growing our business and contributing to human health, we should expand our production infrastructure for responding to the increasing demand for drugs resulting from population aging, spread of infectious diseases, and emergence of new drugs with advanced scientific technology. In addition, for sustainable development, it is essential to revolutionize the technology of controlling environmental risks such as hazardous chemical substances discharged during API manufacturing and enhancing productivity and efficiency.

## Innovation to Green Chemistry

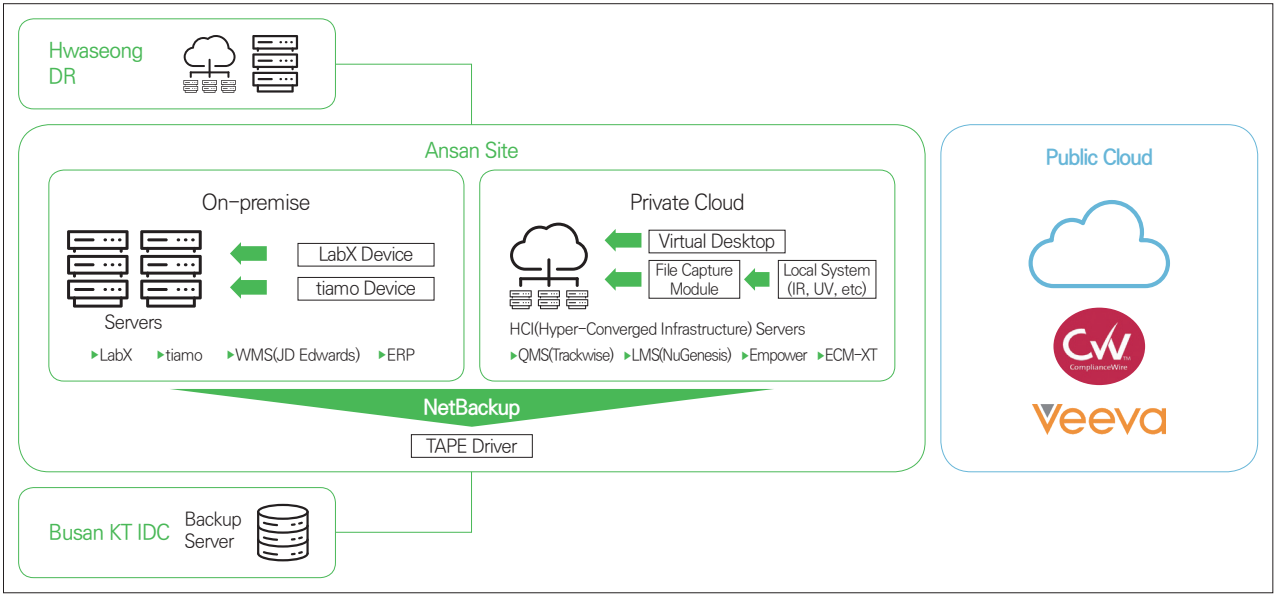
Green chemistry is becoming increasingly important in the chemical industry in line with the current demand for sustainable development and eco-friendly innovation. We have formulated a plan to apply flow chemistry technology and process analytical technology (PAT) to our production processes, and we have been practicing green chemistry. Flow chemistry-based continuous manufacturing can allow us to use ingredients more efficiently through precise flow control than batch production. As a result, we can use ingredients only as much as needed, which minimizes the energy consumption required for API manufacturing. In addition, it reduces waste, by-products, and pollutants. This technology also enables more precise control of key process parameters such as mixing, heating, and retention time, which are excellent for controlling yield and impurities control and lastly ensure outstanding reproducibility of synthetic manufacturing. Yuhan Chemical is planning to set up the flow chemistry facilities for lab-scale research production. We are making efforts to install commercial production scale facilities and start continuous API manufacturing after 2024. As a type of real-time continuous analytical technology, PAT is another innovation in the manufacturing environment. It allows continuous measurement of concentrations of each compound over time under the process condition. In addition, it enables real-time monitoring and controlling of significant process parameters to optimize the manufacturing process and ensure the quality of product. Since 2023, we have been making efforts to cultivate PAT experts and establish the PAT operation system to our manufacturing system in collaboration with academic experts. Our goal is to apply this technology to our commercial API process analysis for the first time and acquire regulatory approval in 2024.

## Strengthening of Digitization

Data and documents in Yuhan Chemical's GMP quality system have already been digitized in our network system. The information management system of production facilities will be digitalized from a currently-constructed production building at the Hwaseong Plant which will be completed within 2023. It is important in reducing environmental impact resulting from paper use as well as enhancing work efficiency and securing data integrity. Through digitization, we can reduce physical storages and strengthen our data security by optimizing the document management processes. As a result, we will be able to make continuous improvements and create an innovative

culture by encouraging cooperation and expertise sharing between team members. In addition, we are strengthening our cloud-based data storage operation to enhance data security and safety. We are accelerating transformation into a paperless culture that facilitates document access and sharing by integrating GMP documents into a cloud-based EDMS.

Computer network diagram for the management of quality management data



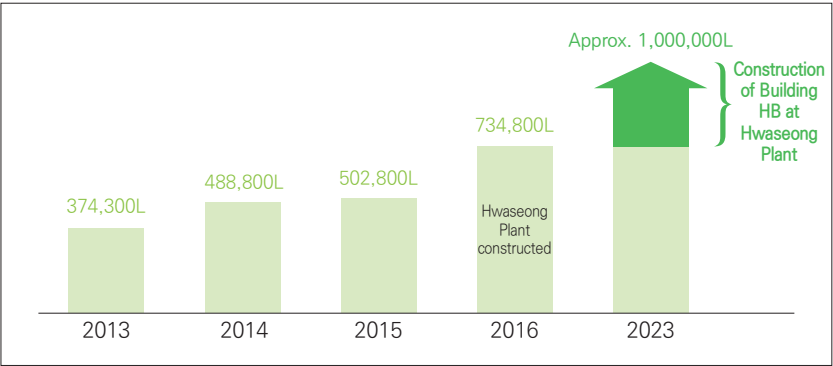
## Expansion of Production Capacity

Yuhan Chemical is operating production facilities that meet the cGMP Standards. Production building HB at the Hwaseong Plant is currently under construction and is expected to be completed in 2023. The HB Building will house small scale GMP production facilities for the production of non-clinical and clinical trial materials under the new drug development stage. The installation of such facilities is expected to be completed in the first half of 2024. Once the production facilities are completed, total production capacity of Yuhan Chemical will reach around 1 million liters. We will be able to provide higher-quality one-stop services as an API CDMO.



Bird's eye view of Hwaseong Plant HB Building currently under construction

Changes in production capacity





ESG Factbook





Economic<sup>1</sup>

Economic Performance

Category		Unit	2020	2021	2022	
Financial status	Total assets		210,682,144,411	224,609,379,342	243,411,552,994	
	Total liabilities		101,513,626,976	106,622,528,023	89,144,299,585	
	Total equity		109,168,517,435	117,986,851,319	154,267,253,409	
	Cash, cash equivalents, and current deposits in financial institutions		8,391,915,043	7,749,731,543	12,350,587,665	
	Borrowings		85,250,000,000	88,550,000,000	65,500,000,000	
	Debt ratio		92.99%	90.37%	57.79%	
	Net debt ratio		70.40%	68.48%	34.45%	
Distributed economic values	Stakeholders	Details	KRW			
	Executives and employees	Wages/severance and retirement benefits/employee benefits		26,996,410,868	29,538,744,524	31,860,497,310
		Training expenses		166,979,123	139,660,524	268,194,128
	State	Income tax expenses		-1,289,713,750	-662,191,714	1,116,204,845
	Investors	Interest on loans/Interest on bank loans, etc.		2,056,616,841	1,957,438,698	2,343,941,306
		Earnings per share		-1,664	1,274	697
		ROE		-8.44%	6.50%	3.24%
	Business partners	Purchases from partners (analysis equipment, raw materials, facilities, etc.)		101,985,912,279	93,952,221,908	94,769,583,697
		Commission expenses (waste treatment, equipment maintenance expenses, etc.)		5,875,936,108	6,338,783,579	6,009,685,950

Environmental<sup>1</sup>

Air Pollutant Control<sup>1)</sup>

Ansan

Category	Unit	2020	2021	2022
Nitrogen oxides	ppm	1.3	70.7	12.0
Sulfur oxides		1.0	0.7	2.0
Dust	mg/m <sup>3</sup>	0.5	0.3	0.3

1) The table shows the maximum emission concentration values. All the business sites meet the permissible emission levels stated in the Clean Air Conservation Act of the Republic of Korea.

Water Pollutant Control

Ansan

Category	Unit	2020	2021	2022
Biochemical oxygen demand (BOD)	kg	1,073	358	225
Total organic carbon (TOC) <sup>1)</sup>		3,354	1,475	609
Suspended solids (SS)		1,848	660	690
Total nitrogen (T-N)		1,530	2,111	2,626
Total phosphorus (T-P)		73	211	20

1) The TOC standards apply from 2022. The COD applied before 2022. (TOC: Total organic carbon / COD: Chemical oxygen demand)

Hwaseong

Category	Unit	2020	2021	2022
Nitrogen oxides	ppm	25.7	29.3	32.0
Sulfur oxides		0.0	1.0	0.0
Dust	mg/m <sup>3</sup>	2.6	0.3	2.8

Hwaseong

Category	Unit	2020	2021	2022
Biochemical oxygen demand (BOD)	kg	98	291	953
Total organic carbon (TOC) <sup>1)</sup>		222	553	636
Suspended solids (SS)		77	320	399
Total nitrogen (T-N)		41	155	125
Total phosphorus (T-P)		1	3	1

Water Consumption

Ansan

Category	Unit	2020	2021	2022
Service water	ton	3,104	3,436	3,831
Industrial water		168,094	162,447	132,994
Total water consumption		171,198	165,883	136,825
Water consumption intensity <sup>1)</sup>		1,087	1,048	1,008

1) Based on the total production of Yuhan Chemical's products

Waste

Ansan

Category	Unit	2020	2021	2022	
Waste treatment	Recycling <sup>1)</sup>	ton	8,481	13,167	11,967
	Incineration (external) <sup>1)</sup>		5,234	3,313	3,578
	Landfill (external) <sup>1)</sup>		114	120	105
	Total waste treatment <sup>1)</sup>		13,829	16,601	15,650
	Waste treatment intensity <sup>2)</sup>	ton/ton	88	105	115
	Waste recycling rate <sup>3)</sup>	%	59	75	75

1) Based on the data from the Allbaro System of the Ministry of Environment of the Republic of Korea

2) Based on the total production of Yuhan Chemical's products

Hwaseong

Category	Unit	2020	2021	2022
Service water	ton	26,365	35,474	31,048
Industrial water		0	0	0
Total water consumption		26,365	35,474	31,048
Water consumption intensity <sup>1)</sup>		167	224	229

Hwaseong

Category	Unit	2020	2021	2022	
Waste treatment	Recycling <sup>1)</sup>	ton	2,522	2,837	2,794
	Incineration (external) <sup>1)</sup>		328	338	269
	Landfill (external) <sup>1)</sup>		11	23	26
	Total waste treatment <sup>1)</sup>		2,861	3,198	3,089
	Waste treatment intensity <sup>2)</sup>	ton/ton	18	20	23
	Waste recycling rate <sup>3)</sup>	%	83	83	80

3) Based on the data from the Korea Resource Recirculation Information System of the Ministry of Environment of the Republic of Korea

Chemical Management Training & Education

Category		Unit	2020	2021	2022
Chemical Management Training & Education	Number of employees who completed training	Environmental/Chemical training & education <sup>1)</sup>	38	56	54
		Training for hazardous chemical substances handlers <sup>2)</sup>	153	169	106
		Education for staff engaged in hazardous chemical substances handling facilities <sup>3)</sup>	155	171	308

1) Training for new employees (8 hours of orientation, special safety and health education – 16 hours for each subject, 3 or 6 hours of regular safety and health education, 16 hours of training for supervisors)

2) Training for hazardous chemical substances supervisor(chief & inspectors) (Education hours per person: 16 hours)

3) Education for staff engaged in hazardous chemical substances handling facilities (Education hours per person: 2 hours)

Energy Consumption (Ansan Plant)<sup>1)</sup>

Category	Unit	2020	2021	2022
Fuel	TJ	1.06	1.06	2.75
Propane		0.37	0.38	0.34
LNG <sup>2)</sup>		-	-	1.62
Gasoline		0.62	0.57	0.70
Diesel		0.07	0.12	0.09
Electricity	TJ/ton	275.91	278.40	276.01
Cogeneration steam		78.85	82.91	78.39
Total energy consumption		355.82	362.37	357.14
Energy consumption intensity <sup>3)</sup>		2.26	2.29	2.63

1) A business site subject to the GHG Emissions and the Energy Target Management System of the Republic of Korea

2) LNG used with the installation of RTO (Regenerative Thermal Oxidizer) in 2022

3) Based on the total production of Yuhan Chemical's products

4) The final detailed statement may change depending on the result of a verification by the Ministry of Environment.

<sup>1</sup> As of the end of December



Occupational safety and health<sup>1)</sup>

Category		Unit	2020	2021	2022
Lost time incident rate <sup>2)</sup>	Executives and employees	Cases / 200,000 working hours	0.27	0.26	1.34
	Suppliers <sup>3)</sup>		0.00	0.00	4.46
Severity rate	Executives and employees	%	0.27	0.27	1.29
No. of serious accidents	Executives and employees	Cases	0	0	0

1) No. of incidences of fatality between 2020 and 2022: 0

2) LTIR: Lost Time Incident Rate = No. of lost time incidents \* 200,000 / Total working hours

3) In-house resident partners in Yuhan Chemical

GHG emissions (Ansan Plant)<sup>1)</sup>

Category		Unit	2020	2021	2022
Scope 1: Direct emissions <sup>2)</sup>	CO <sub>2</sub>	tCO <sub>2</sub> -eq	66.39	66.57	235.43
	CH <sub>4</sub>		0.31	0.29	0.50
	N <sub>2</sub> O		1.46	1.35	1.73
	HFCs		0.00	0.00	0.00
	PFCs		0.00	0.00	0.00
	SF <sub>6</sub>		0.00	0.00	0.00
	Total		68.17	68.21	237.66
Scope 2: Indirect emissions <sup>2)</sup>	CO <sub>2</sub>		17,351.21	16,939.34	19,096.99
	CH <sub>4</sub>		4.32	3.13	3.69
	N <sub>2</sub> O		41.57	92.70	101.82
	Total		17,397.10	17,035.18	19,202.51
Total GHG emissions (Scope 1 + Scope 2)			17,465	17,103	19,440
GHG emissions intensity (Scope 1 + Scope 2) <sup>4)</sup>		tCO <sub>2</sub> -eq/ton	157	158	136

1) A business site subject to the GHG emissions and the Energy Target Management System of the Republic of Korea

2) Greenhouse Gas and Energy Target Management Scheme of the Republic of Korea is applied

3) 2022 Scope 1 and 2 GHG emissions were prepared on the basis of the GHG emissions statement submitted to the Ministry of Environment. The numbers above may change depending on the result of verification by the Ministry of Environment.

4) Based on the total production of Yuhan Chemical's products

Violation of Environmental Law

Category	Unit	2020	2021	2022
Total amount of fines	KRW million	0	0	0
No. of lawsuits filed	Cases	0	0	0
Nonmonetary restrictions		0	0	0

Investment in environmental protection

Category	Unit	2020	2021	2022
Waste and discharge treatment costs	KRW million	2,267	2,598	2,312

Environmental Management Systems Certification

Category	First certification date	2020	2021	2022
Environmental Management	ISO 14001 – Environmental Management Systems	2017	Certification maintained	Certification maintained

Social<sup>1</sup>

Diversity of employees

Category		Unit	2020	2021	2022
Total no. of employees	Total No.		366	377	389
	Male		327	334	352
	Female		39	43	37
Type of contract	Full-timer	Total No.	351	368	382
		Male	318	332	350
		Female	33	36	32
	Part-timers	Total No.	15	9	7
		Male	9	2	2
Age	Under 30	Female	6	7	5
		Persons	96	85	92
	30 to 50	Male	17	17	12
		Female	196	218	225
	In their 50 or older	Male	17	21	19
		Female	35	31	35
	Rank	Female	5	5	6
		Total No. of management personnel	25	23	25
		Total No. of middle managers	125	139	146
		Total No. of executives	5	5	6
		Percentage of female management personnel	0.0	0.0	4.0
		Percentage of female middle managers	0.8	0.7	1.4
		Percentage of female executives	0.0	0.0	0.0
Female	Persons	Total No. of female employees and executives	39	43	37
		No. of female management personnel	0	0	1
		No. of female middle managers	1	1	2
		No. of female executives	0	0	0
Minority	No. of employees with disabilities		4	4	4

1 As of the end of December

Recruitment

Category			Unit	2020	2021	2022
New recruits	Total No.		Persons	38	56	54
	Gender	Male		32	46	52
		Female		6	10	2
	Age	Under 30		30	44	38
		30 to 50		8	12	15
		In their 50 or older		0	0	1

Turnover (Retirement)

Category		Unit	2020	2021	2022
Turnover (Retirement) rate	Total turnover (retirement) rate <sup>1)</sup>	%	13.4	13.5	9.8
	Voluntary turnover rate <sup>2)</sup>		9.0	9.5	8.7
Turnover by gender	Male	Persons	40	44	30
	Female		9	7	8
Turnover by age	Under 30		27	27	17
	30 to 50		20	18	19
	In their 50 or older		2	6	2

1) Including personnel who retired at the regular retirement age  
2) The number of voluntary turnover for the year to the total number of employees and executives at the end of the year

Employees who took parental leaves and returned<sup>1)</sup>

Category		Unit	2020	2021	2022
Employees who took maternity leave	Total (female)	Persons	2	2	2
	Total No.		5	10	6
Employees who took parental leave	Male		3	7	4
	Female		2	3	2
Employees who returned to work after parental leave	Total No.		4	5	2
	Male		2	3	1
	Female		2	2	1

1) Calculated on the basis of the number of employees who used parental leave in the number of employees with the right to parental leave

Labor-Management Council

Category	Unit	2020	2021	2022
Percentage of executives and employees applied with Labor-Management Council	%	100	100	100
No. of Labor-Management Council meetings held	Cases	4	4	4
No. of Labor-Management Council items discussed		8	10	9
Percentage of items resolved by Labor-Management Council	%	88	90	100

Safety and health training

Category		Unit	2020	2021	2022
Safety and health training <sup>1)</sup>	Training hours	Orientation	296	432	456
		Special Safety and Health Education	768	1,128	1,176
		Regular Safety and Health Education	1,485	1,617	1,422
		Supervisor	864	848	1,408
	Number of employees who have completed training	Orientation	37	54	57
		Special Safety and Health Education	32	47	49
		Regular Safety and Health Education	278	291	265
		Supervisor	54	53	88

1) Training for new employees (8 hours of orientation, special safety and health education – 16 hours for each subject, 3 or 6 hours of regular safety and health education, 16 hours of training for supervisors)

Training for business suppliers

Category		Unit	2020	2021	2022
Safety and health training for business suppliers <sup>1)</sup>	Suppliers subject to training	No. of enterprises	4	4	4
	Suppliers who completed training		4	4	4
	Training completion rate	%	100	100	100

1) For in-house partners in Yuhan Chemical

Investment in and Training for Information Protection

Category		Unit	2020	2021	2022
Investment in information protection <sup>1)</sup>		KRW million	41	254	84
Information security training	Training hours	Hours	5	4	4
	No. of participants	Persons	367	377	389

1) Investment details: Facility and system investment in 2021 and 2022

Violation of information protection

Category		Unit	2020	2021	2022
No. of complaints which have been proved as information protection violations	Complaints raised by an external party and proven within the organization		0	0	0
	Complaints raised by a regulatory authority		0	0	0
	No. of proved cases of customer data leaked, stolen, or lost		0	0	0
Violation of laws and fines	Amount of fines on violations of information security law and regulations	KRW million	0	0	0

Occupational Health and Safety Management Systems Certification

Category		First certification date	2020	2021	2022
Occupational Health and Safety Management	ISO 45001 – Occupational Health and Safety Management Systems	2022	–	–	Certified



Governance

Governance

Category		Unit	2020	2021	2022
Composition of BOD	Executive Director	Persons	2	2	2
	Non-executive Director		1	1	1
	Auditor		1	1	1
No. of BOD meetings held		No. of times	9	7	6

Violation of Laws and Regulations

Category	Unit	2020	2021	2022
Unfair transactions such as discouraging competitions and monopoly	Cases	0	0	0
Corruption, irregularities, and bribe-taking (whistle blowing)		0	0	0

Grievance settlement

Category	Unit	2020	2021	2022
No. of grievances	Cases	5	2	5
Settlement rate	%	100	100	100

Memberships

Korea Chamber of Commerce and Industry	Gyeong-gi Process Safety Management Council	Korea Industrial Safety Association
Korean Red Cross	West Complex Pharmaceutist Association	Korea Management Association
Korea International Trade Association	Korean Industry Pharmacists Association	Korea Environmental Engineers Association
Korea Chemicals Management Association	SC-CEO (Smart Chemical CEO)	

Appendix

Sustainability Initiatives

- GRI Content Index
- UN SDGs

Third-party Assurance Statement

GRI Content Index

GRI Standards	Category	Disclosure No	Disclosure Name	Report page	Notes
General disclosures					
GRI 2: General Disclosures 2021 – The organization and its reporting practices	The organization and its reporting practices	2–1	Organization details	6	
		2–2	Entities included in the organization’s sustainability reporting	6	
		2–3	Reporting period, frequency, and contact point	2	
		2–4	Restatements of information	–	Publication of first report
		2–5	External assurance	70–71	
GRI 2: General Disclosures 2021 – Activities and workers	Activities and workers	2–6	Activities, value chain, and other business relationships	44–45	
		2–7	Employees	61–62	
		2–8	Workers who are not employees	–	Not applicable
		2–9	Governance structure and composition	53, 63	
	Governance	2–10	Nomination and selection of the highest governance body	53	
		2–11	Chair of the highest governance body	53	
		2–12	Role of the highest governance body in overseeing the management of impacts	53	
		2–13	Delegation of responsibility for managing impacts	53	
		2–14	Role of the highest governance body in sustainability reporting	33, 53	
		2–15	Conflicts of interest	51, 53	
		2–16	Communication of critical concerns	53	
		2–17	Collective knowledge of the highest governance body	53, 63	
		2–18	Evaluation of performance of the highest governance body	53	
		2–19	Remuneration policies	53	
		2–20	Process to determine remuneration	53	
		2–21	Annual total compensation ratio	–	Confidential
GRI 2: General Disclosures 2021 – Strategy, policies and practices	Strategy, policies, and practices	2–22	Statement on sustainable development strategy	16–17	
		2–23	Policy commitments	16–17	
		2–24	Embedding policy commitments	16–17	
		2–25	Processes to remediate negative impacts	52, 53	
		2–26	Mechanisms for seeking advice and raising concerns	44–45	
		2–27	Compliance with laws and regulations	51–53	
		2–28	Membership associations	64	
		2–29	Approach to stakeholder engagement	18	
GRI 2: General Disclosures 2021 – Stakeholder engagement	Stakeholder engagement	2–30	Collective bargaining agreements	62	

GRI Content Index

GRI Standards	Category	Disclosure No	Disclosure Name	Report page	Notes
Material Topics					
GRI 3: Material Topics 2021	Disclosures on major issues	3–1	Process to determine major issues	19–20	
		3–2	List of major issues	21	
		3–3	Management of major issues	32, 38, 50	
Economic Performance (GRI 200)					
GRI 201: Economic Performance 2016	Economic performance	201–1	Direct economic value generated and distributed	58	
		201–2	Financial implications and other risks and opportunities due to climate change	35–37	
		201–3	Defined benefit plan obligations and other retirement plans	58	
		201–4	Financial assistance received from the government	–	Not applicable
GRI 205: Anti-corruption 2016	Anti-corruption	205–1	Operations assessed for risks related to corruption	–	Not applicable
		205–2	Communication and training on anti-corruption policies and procedures	51	
		205–3	Confirmed incidents of corruption and actions taken	51	
GRI 206: Anti-competitive Behavior 2016	Anti-competitive behavior	206–1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	–	No. of legal actions: 0
Environmental Performance (GRI 300)					
GRI 302: Energy 2016	Energy	302–1	Energy consumption within the organization	58	
		302–3	Energy intensity	58	
		302–4	Reduction of energy consumption	36	
		302–5	Reductions in energy requirements of products and services	36	
GRI 303: Water and Effluents 2018	Water and effluents	303–1	Interactions with water as a shared resource (corporate activities, products, and services’ impact on water and information including water stress)	59	
		303–2	Management of water discharge-related impacts	59	
		303–3	Water withdrawal	59	
		303–4	Water discharge	59	
		303–5	Water consumption	59	
GRI 305: Emissions 2016	Emissions	305–1	Direct (Scope 1) GHG emissions	59	
		305–2	Energy indirect (Scope 2) GHG emissions	59	
		305–3	Other indirect (Scope 3) GHG emissions	–	Not applicable
		305–4	GHG emissions intensity	59	
		305–5	Reduction of GHG emissions	36	
		305–6	Emissions of ozone-depleting substances (ODS)	–	Not applicable
		305–7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	59	
GRI 306: Waste 2020	Waste	306–1	Waste generation and significant waste-related impacts	37, 60	
		306–2	Management of significant waste-related impacts	37	
		306–3	Waste generated	37, 60	
		306–4	Waste diverted from disposal	60	
		306–5	Waste directed to disposal (incineration, landfill, etc.)	60	



GRI Content Index

GRI Standards	Category	Disclosure No	Disclosure Name	Report page	Notes
Social Performance (GRI 400)					
GRI 401:Employment 2016	Employment	401-1	New employee hires and employee turnover	62	
		401-2	Benefits provided to full-time employees but not to temporary or part-time employees	13, 41, 62	
		401-3	Parental leave	62	
GRI 402: Labor/Management Relations 2016 GRI 403: Occupational Health and Safety 2018	Labor/Management relations Occupational health and safety	403-1	Occupational health and safety management system	42-43	
		403-2	Hazard identification, risk assessment, and incident investigation	28-29, 49	
		403-3	Occupational health services	13, 28-29	
		403-4	Worker participation, consultation, and communication on occupational health and safety	42-43	
		403-5	Worker training on occupational health and safety	24-25, 26-27, 42-43	
		403-6	Promotion of worker health	42-43	
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	42-43	
		403-8	Workers covered by an occupational health and safety management system	42-43	
		403-9	Work-related injuries	60	
		403-10	Work-related ill health	60	
GRI 404: Training and Education 2016	Training and education	404-1	Average hours of training per year per employee	60, 63	
		404-2	Programs for upgrading employee skills and transition assistance	49	
		404-3	Percentage of employees undergoing regular performance and career development reviews	60	
RI 405: Diversity and Equal Opportunity 2016	Diversity and equal opportunity	405-1	Diversity of governance bodies and employees	61	
		405-2	Ratio of basic salary and remuneration of women to men	61	
GRI 410: Security Practices 2016	Security practices	410-1	Security personnel trained on human rights policies or procedures	41	
GRI 413: Local Communities 2016	Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	48-49	
		413-2	Operations with significant actual and potential negative impacts on local communities	-	Not applicable
GRI 414: Supplier Social Assessment 2016	Supplier social assessment	414-1	New suppliers screened using social criteria	6, 8-9, 55	Applicable to HB Building
		414-2	Negative social impacts in the supply chain and actions taken	-	Not applicable
GRI 418: Customer Privacy 2016	Customer privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	Not applicable

UN SDGs

In order to achieve the UN SDGs (United Nations Sustainable Development Goals) for socially and environmentally sustainable human development as a global citizen, Yuhan Chemical selects highly related sustainable development goals and conducts a variety of socially responsible management activities, taking into account direct and indirect impact on its business.

UN SDGs(United Nations Sustainable Development Goals)			Implementation direction and activities	Report page
	Goal 3	Ensure healthy lives and promote well-being for all at all ages	New drug development through reinforced R&D Quality management for customer safety Management for customer satisfaction Social contribution	26-27, 28-29, 41, 42-43, 48-49
	Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Development of talented individuals Social contribution	39-40, 41
	Goal 5	Achieve gender equality and empower all women and girls	Corporate culture Human rights management Development of talented individuals	39-40, 41
	Goal 6	Ensure availability and sustainable management of water and sanitation for all	Eco-friendly management Responsibility for the environment and safety	33-34
	Goal 7	Ensure access to affordable, reliable, sustainable, and modern energy for all	New drug development through reinforced R&D Responsibility for the environment and safety	33-34
	Goal 8	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all	Growth through innovation Corporate culture Safety and health Development of talented individuals Human rights management	28-29, 39-40, 42-43, 44-45, 48-49, 54-55, 53
	Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation	New drug development through reinforced R&D	26-27, 46-47, 54-55
	Goal 12	Ensure sustainable consumption and production patterns	Eco-friendly management Strengthening of quality management	24-25, 33-34, 44-45
	Goal 13	Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy	Eco-friendly management Responsibility for the environment and safety	35-38
	Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels	Corporate culture Compliance	44-45, 48-49, 51-52, 53

# Third-party Assurance Statement

## To Yuhan Chemical’s management and stakeholders

### Introduction

The Korea ESG Management Support Association (hereinafter referred to as the “Reviewer”) was requested to conduct a third-party review on the 2023 Yuhan Chemical Sustainability Report (hereinafter referred to as the “Report”) by Yuhan Chemical, Inc. (hereinafter referred to as “Yuhan Chemical”). This assurance report deals with Yuhan Chemical’s first sustainability report and applies only to information of fiscal year 2022 and some information of fiscal year 2023. Yuhan Chemical is responsible for the information and data contained in this written opinion. The Reviewer reviewed the validity and suggested independent review opinions on the assumption that all data and information provided are complete and sufficient. Yuhan Chemical is fully responsible for all opinions and performances contained in this Report.

### Eligibility and independence

As an independent reviewing agency, the Reviewer does not have any interests for profit making with Yuhan Chemical in any business activities, except their duty to provide third-party assurance service. Therefore, the Reviewer does not violate independence or fairness.

### Assurance standards and level

In accordance with the international assurance standard AA1000AS v3, the Reviewer evaluated the reliability of information contained in the Report and compliance with inclusivity, materiality, responsiveness, and impact as “Moderate.” Assurance was conducted in accordance with the Universal Standards and Topic Standards that meet the GRI Standards 2021.

### Type and scope of assurance

The Reviewer conducted Assurance Type 1 with regard to compliance with the Four Principles of AA1000AP 2018. The scope of assurance is from January 1 to December 31, 2022 as shown in the Written Opinion of the GRI Standards 2021 Reporting Principles. The assurance process focused on Yuhan Chemical’s systems and activities including sustainability management policies and goals, business, standards, and performances during the reporting period. The Reviewer also verified Yuhan Chemical’s environmental and social data and financial data for a broad sense of economic performances. Assurance on stakeholder engagement was limited to a review on the materiality assessment process.

- Review on Disclosures of GRI Standards  
The Reviewer has confirmed that the Report was prepared in accordance with the GRI Standards 2021, and that the data provided by Yuhan Chemical was true on the basis of the Universal Standards and Topic Standards.
  - Universal Standards(Universal Standards)  
2-1~2-30 / 3-1, 3-2, 3-3
  - Topic Standards(Topic Standards)  
Economy: 201(1, 2, 3, 4), 205(1, 2, 3), 206(1)  
Environment: 302(1, 2, 3, 4, 5), 303(1, 2, 3, 4, 5), 305(1, 2, 3, 4, 5, 6, 7), 306(1, 2, 3, 4, 5)  
Society: 401(1, 2, 3), 402(1), 403(1, 2, 3, 4, 5, 6, 7, 8, 9, 10), 404(1, 2, 3), 405(1, 2) 410(1), 413(1, 2), 414(1, 2), 418(1)
- Scope of assurance
  - Reporting Principle of GRI Standards: Sustainability management policies, strategies, and business performance
  - Reporting Principle of GRI Standards: Matters included in the materiality assessment issues related to disclosures and stakeholders
  - Reporting Principle of GRI Standards: Rationality and adequacy of the process and system of preparing a written opinion on sustainability management
  - “Outside the Organization” in the Reporting Principle of GRI Standards: Reporting Boundary of Written Opinion, i.e., data and information about Yuhan Chemical’s suppliers, contracting parties, etc. are not included in the scope of assurance.

### Assurance method

- The Reviewer collected information, data, and evidence within the scope of assurance using the following methods:
- Checked Yuhan Chemical’s stakeholder engagement and materiality assessment process through a sustainability management expert;
  - Checked the balance of the investigation result and report of media reports related to Yuhan Chemical’s sustainability management;
  - Checked whether the disclosed data was consistent with the audit report on financial performance data and financial statements;
  - Checked other relevant internal performance documents and preliminary data.

### Assurance result and opinion

The Reviewer reviewed the content of the report draft and suggested their opinion. The Report was modified accordingly. There was no significant error or inappropriate description in the Report. The Reviewer suggests the following opinion about the 2023 Yuhan Chemical Sustainability Report:

- Inclusivity  
We have confirmed that Yuhan Chemical has been making efforts to establish an engagement process with being aware of the significance of stakeholder engagement in sustainability management. We have also confirmed that Yuhan Chemical defined its employees, clients, shareholders, suppliers, local communities, and government as stakeholders and established a communication channel by group, and that it has been collecting a wide range of opinions.
- Materiality  
Yuhan Chemical is judged not to have omitted or excluded information important to its stakeholders. We have confirmed that Yuhan Chemical conducted a materiality assessment with major issues found through internal and external environmental analyses and reported the results.
- Responsiveness  
We have confirmed that Yuhan Chemical has been making efforts to respond to stakeholders’ demands and interests by reflecting the stakeholders’ opinions in the Report. We have not found any evidence of inappropriate report of Yuhan Chemical’s responses to major stakeholder issues.
- Impact  
We have confirmed that Yuhan Chemical has been identifying and monitoring the impacts of its business activities on stakeholders. We also confirmed that it reflected the relevant content in the Report properly.

### Proposal for improvement

The Reviewer proposes the following for continuous improvement, expecting that the Yuhan Chemical Sustainability Report is proactively utilized as a means of communication with its stakeholders:

- Yuhan Chemical has reflected stakeholders’ expectations and interests in the Report by selecting key ESG tasks based on the characteristics of the pharmaceutical industry and expressing its quantitative and qualitative performances. We suggest that Yuhan Chemical enhance sustainability by making efforts to achieve its KPIs for mid- and long-term sustainability management.

June 27, 2023

Korea ESG Management Support Association Chairperson Im Won-bin





