
勝一化工股份有限公司
SHINY CHEMICAL INDUSTRIAL CO., LTD.
REDUCING EMISSIONS
AT THE SOURCE
ESG
2024
永續報告書

Report Overview

About the Report

The 2025 edition of the Sustainability Report of Shiny Chemical Industrial Co., Ltd. (hereinafter referred to as "Shiny Chemical" or the "Company") is the Company's 11th sustainability report. It discloses the Company's economic performance, environmental performance, and its active participation in sustainable actions, as well as Shiny Chemical's response to stakeholder expectations.

This report has been prepared in accordance with the GRI Standards 2021, SASB, and TCFD disclosure guidelines, and it aligns with the United Nations Sustainable Development Goals (SDGs). The report reflects the Company's long-term ESG commitments. The disclosure has also been verified by a third-party assurance institution in accordance with AA1000 Assurance Standards. In addition, the report refers to the research and disclosure practices of benchmark companies both domestically and internationally, serving as a key reference to continuously improve Shiny Chemical's ESG management and disclosure quality (detailed in the appendix).

Publication Information

First publication date: June 2015
Previous publication date: August 2024
Current publication date: August 2025
Next scheduled publication: August 2026
The full report can be downloaded from the Shiny Chemical corporate website: 【https://www.shinychem.com.tw/】

Reporting Scope

This report covers the operations of Shiny Chemical Industrial Co., Ltd., including its headquarters, Yong-An Plant I, Yong-An Plant II, Qianzhen Plant, and the Intercontinental Storage and Transportation Center. The reporting period spans from January 1, 2024, to December 31, 2024, with certain performance indicators covering data up to the end of June 2025. The report includes both consolidated financial statements and sustainability performance. The financial figures are presented in New Taiwan Dollars (NTD) in accordance with the International Financial Reporting Standards (IFRS).Unless otherwise noted, environmental data cover the manufacturing facilities of Shiny Chemical in Taiwan. Social performance data cover all employees of the Company. If any discrepancies arise compared to previous reports, explanations will be provided in the corresponding chapters. This report reflects Shiny Chemical's long-term commitment to sustainability, corporate social responsibility, and continuous value creation.

Report Compilation and Process

Writing Principles and Information Quality

Standards and Guidelines Followed

Standards and Guidelines Followed	
Global Reporting Initiative (GRI)	GRI Standards (2021 Edition)
Taiwan Stock Exchange	Taiwan Stock Exchange Corporate Governance Roadmap
	Sustainable Development Best Practice Principles for TWSE/TPEx Listed Companies
United Nations	United Nations Sustainable Development Goals (SDGs)
Financial Stability Board (FSB)	Task Force on Climate-related Financial Disclosures (TCFD) Recommendations
Sustainability Accounting Standards Board (SASB)	SASB Standards for Chemicals Industry

External Assurance

Assurance Standard		Third-Party Verifier
Sustainability Report	AA1000 Assurance Standard	Crowe (TW) CPAs
Financial Data	Regulations Governing Auditing Certification of Financial Statements by Certified Public Accountants	Crowe (TW) CPAs
Environmental Management	ISO 14064-1:2018 Greenhouse gases ISO 14001:2015 Environmental Management System	LRQA Group Limited Taiwan Branch
Energy Management	ISO 50001:2018 Energy Management System	LRQA Group Limited Taiwan Branch Certification expected to be obtained in September 2025
Occupational Health and Safety Management	ISO 45001:2018 Occupational Health and Safety Management System Process Safety Management (PSM)	LRQA Group Limited Taiwan Branch
Quality and Customer Relations Management	ISO 9001:2015 Quality Management System	LRQA Group Limited Taiwan Branch

Feedback

If you have any comments or suggestions regarding this report or Shiny Chemical's sustainable development practices, please contact us. Your valuable feedback will help us continue to improve.

勝一化工股份有限公司
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From The Founder

Looking Ahead to 50

Shiny Chemical operates in five-year phases. Over the past nine phases, the company has made forward-looking investments in line with industry and customer needs, achieving outstanding performance in revenue, profit, and product portfolio, and generating considerable benefits. Now entering the tenth five-year phase (2024–2028), Shiny Chemical is fully prepared. In addition to ensuring sufficient capacity to meet customer demand through 2028, the company will continue joint R&D with customers on next-generation semiconductor solvents for advanced processes in high-performance computing and AI applications. At the same time, it will further advance solvent recycling and regeneration to promote environmental sustainability, enabling Shiny Chemical to move forward with greater stability and longevity.

Keeping Pace with the Times and Constantly Evolving

Founded in 1979, Shiny Chemical began with traditional industrial solvents and gradually expanded into electronic chemicals and semiconductor-related industries over the past four decades. Today, the company has advanced further into customized chemical formulations for semiconductor manufacturing, achieving a leading position in high-value-added fine chemicals. Over 47 years, Shiny Chemical has continuously strengthened its foundations, enhanced R&D capabilities, kept pace with industry changes, and steadily built long-term competitiveness.

Safeguarding Employees and Ensuring Customer Satisfaction

Sustainable business development requires fostering both employee well-being and customer trust. We aim to enhance employee welfare and satisfaction, strengthen customer partnerships, and provide stable returns to shareholders. By balancing the interests of employees, customers, and shareholders, Shiny Chemical ensures sustainable operations. Guided by this mission, we are moving forward with strategies that protect the environment, improve corporate profitability, and create long-term competitive advantages and sustainable growth.

Protecting the Environment,Conserving Energy, and Reducing Carbon Emiss

We recognize that chemical production processes may inevitably generate wastewater, waste gases, and emissions. Therefore, we place great emphasis on environmental protection and energy conservation. Shiny Chemical remains committed to energy conservation, carbon reduction, and emission reduction through resource recycling, low-carbon process substitution, and high-efficiency equipment upgrades. Meanwhile, we are continuously optimizing renewable energy facilities such as solar power, thereby lowering greenhouse gas emissions each year. In August 2022, we established an ESG Task Force to systematically review and track carbon reduction performance across different energy-saving projects. We are progressing toward achieving a 30% reduction in carbon emissions by 2030 and striving toward the 2050 net-zero emissions goal.

勝一化工股份有限公司
董事長 孫靜源

Company Overview and Organization

. Founded in December 1979; headquarters located in Yong-An District, Kaohsiung City; total of 454 employees.

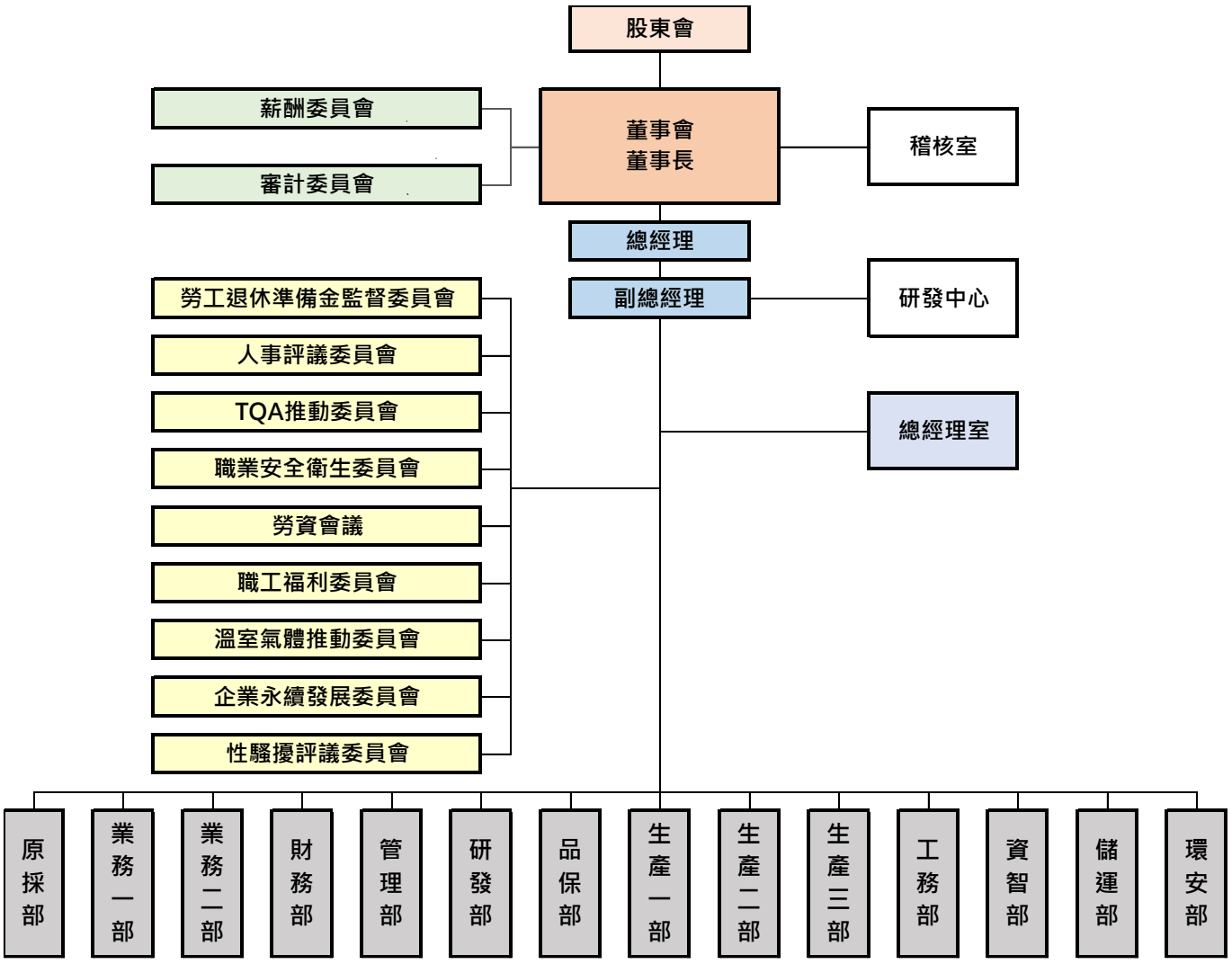
. Capital: NT$2.5 billion; listed on the stock exchange in 2009.

. A leading solvent manufacturer in Taiwan specializing in the production and technical application of high-quality electronic-grade solvents.

. Electronic-grade solvents are mainly used as cleaning agents in semiconductor manufacturing processes and LCD panel production. Customers include industries such as semiconductors and flat-panel displays.

. Continuously engaged in the R&D of green and environmentally friendly products, gaining recognition and endorsement from major domestic semiconductor companies, becoming a key partner in green supply chain collaboration.

. ommitted to implementing various energy conservation and carbon reduction measures, including plans to use biomass fuels to reduce carbon emissions, recycling and reusing waste liquids generated from production, and achieving circular economy goals.



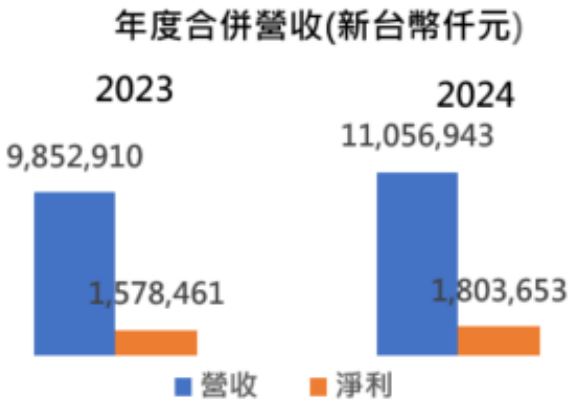
Sustainability Performance

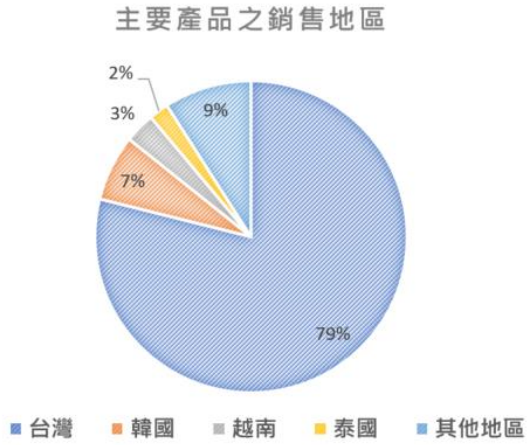
Business Performance

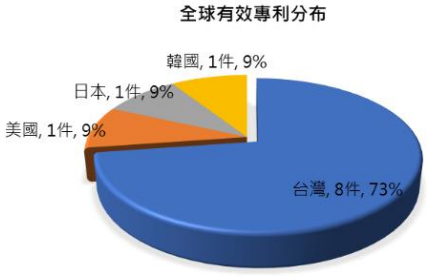
In 2024, the Company's consolidated operating revenue was NT$11,056,943 thousand, representing a 12.22% increase compared to NT$9,852,910 thousand in 2023. Consolidated net profit after tax in 2024 was NT$1,803,653 thousand, an increase of 14.27% compared to NT$1,578,461 thousand in 2023. The 2024 consolidated net profit margin was 19.89%, earnings per share (EPS) was NT$8.07, consolidated return on equity (ROE) was 16.31%, and cash dividend per share was NT$7.21.

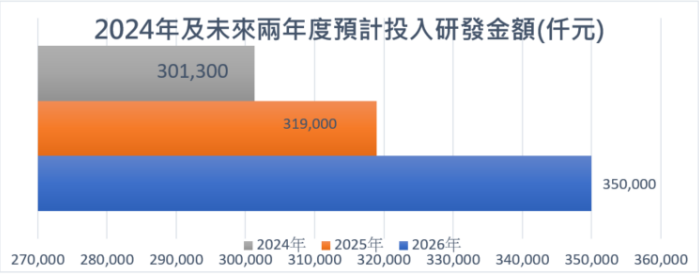
According to the rankings of the CommonWealth Magazine Top 5,000 Enterprises based on revenue, tax payment, profit, revenue growth, profit growth, net worth growth, return on equity, and earnings per share, and by allocating comprehensive scores proportionally across eight key criteria, Shiny Chemical was ranked as follows in 2023–2024:

Ranking Indicators	2023	2024
Overall Indicator Ranking	236	138
Net Revenue Ranking	230	209









2024 R&D Achievements
Enhanced quality of electronic-grade solvent development for semiconductor manufacturing processes.
Developed customized products for the electronics industry.
Improved analytical capabilities for high-purity electronic-grade solvents.
Increased production efficiency through the use of simulation software.
Developed and tested functional coating products.

Environmental Performance

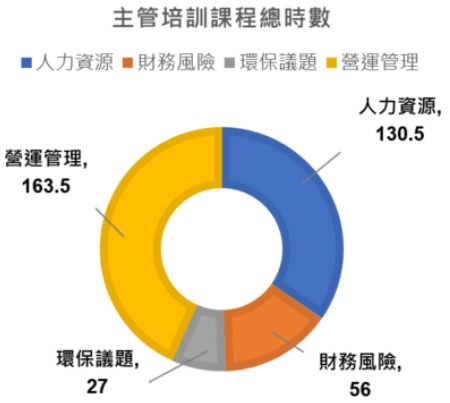
Shiny Chemical upholds the philosophy of "giving equal importance to green production, services, and environmental protection." Throughout product development, manufacturing, usage, and disposal (processes), the company actively implements measures such as process improvements, water resource management, waste and pollution reduction, environmental monitoring, and emergency response. These efforts are aimed at achieving the goals of low energy consumption, low pollution, and environmentally friendly operations.

2024 Carbon Reduction Results
Replacement of equipment and facility upgrades saved 3.48 million kWh of electricity, reducing carbon emissions by approximately 165 tons.
49.6 kW solar power generation system produced about 53,160 kWh of electricity in 2024.

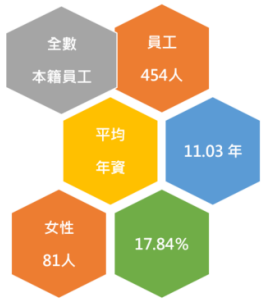
Social Performance

22024 Social Results
Occupational Health and Safety Management ISO 45001 regular audit passed.
Labor safety education and training: total of 3,054 hours, an increase of 357 hours compared to 2023 (+13.2%).
Company-wide employee training: total of 9,325 hours, a reduction of 401.5 hours compared to 2023 (–4.1%).
Supervisor training: total of 1,988 hours, an increase of 1,662 hours compared to 2023 (+509.8%).

Level-2 supervisor training: total of 377 hours. Training courses included: 130.5 hours on human resources, 66.5 hours on finance, 27 hours on environmental protection, and 163.5 hours on operations management.

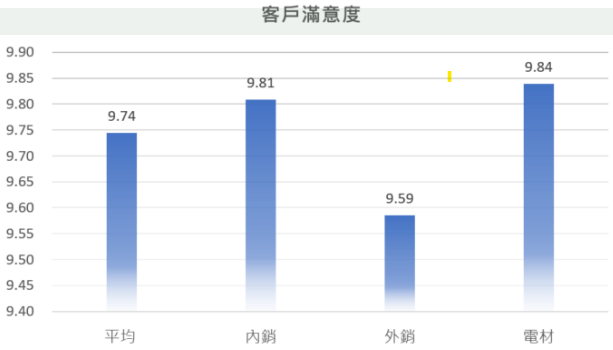


Providing Employment Opportunities for Local Employees
The company's human resources policy ensures the priority of employing local workers. While enhancing recruitment incentives and supplementing workforce needs, all job opportunities are offered exclusively to domestic and local employees, with no employment of foreign migrant workers.



Customer Service

Customer Service in 2024
Products comply with ASTM testing standards as well as RoHS and REACH requirements.
Customer satisfaction surveys were conducted to evaluate various aspects such as technical services, quality, efficiency, and technical support. With customer satisfaction scored on a 10-point scale
In 2024, the company had no violations related to product safety, health, or legal regulations



The overall average customer satisfaction score was **9.74**. By category: Domestic sales: **9.81,** Export sales: **9.59,** Electronic materials: **9.84**

Achievements and Honors

Shiny Chemical's advanced-process cleaning solvents have established a solid leadership position in the semiconductor supply chain.

With sales of electronic-grade solvents now accounting for more than half of total revenue, the company has officially transformed into a business primarily focused on electronic-grade solvent sales, firmly positioned as a key leader in the semiconductor supply chain for advanced-process cleaning solvents.

	Environmental	Social	Governance
Achievements	· Continued equipment efficiency improvements; in 2024, saved 3.48 million kWh of electricity, equivalent to an estimated reduction of 13,500 tons of carbon emissions.	· Sponsored air quality purification facilities for nearby elementary schools. · Continued efforts to improve greenery and aesthetics in the factory area, maintaining ecological diversity and providing employees with a pleasant work environment. · Donated fire extinguishers and supported fire safety training, as well as social welfare activities. · Provided employee maternity allowances and enhanced female fertility benefits.	· Strengthened occupational safety and risk management, with related drills conducted to enhance safety standards. · Collaborated with major semiconductor customers to establish a solvent recycling platform. · Promoted stronger process safety management and reinforced operational risk prevention in production.

1 Corporate Sustainability Blueprint

Sustainability Strategy

Shiny Chemical adheres to the philosophy of **"sound corporate governance, environmental sustainability, and social participation."** The company strengthens sustainability management, enhances information transparency, and integrates sustainable development into its core business, formulating strategies that cover **environment, society, and governance** as the basis of corporate sustainability.

Stakeholder

Customers, employees, investors, suppliers, local communities, and government agencies.

Corporate Values

Shiny Chemical has transformed into a company with electronic-grade solvents as its main products. With advanced-process cleaning solvents as a core strength, the company maintains leadership in Taiwan's semiconductor supply chain while continuing to expand its business scale and advantages.

Dimension	Environment	Social	Governance
SDGs			
Development Outlook	Upholding the philosophy of "green production, services, and environmental protection as equally important." Through ongoing process improvements, water resource management, waste reduction, pollution prevention, environmental monitoring, and emergency response measures, the company strives to achieve goals of low energy consumption, low pollution, and environmental friendliness.	In line with labor laws and international human rights conventions, the company respects and safeguards employee rights, fosters workplace diversity and inclusiveness, ensures occupational health and safety, and provides lifelong learning opportunities. By actively engaging in community care and public welfare, the company promotes positive values and builds a culture of happiness.	Based on fairness, transparency, and accountability, the company establishes a sound governance framework. It strengthens board functions, improves risk management, introduces ESG into decision-making, and enhances information transparency to achieve sustainable growth.
Long-Term Goals	Achieve net zero emissions and carbon neutrality.	Maintain employee happiness ranking within the top 30%.	Improve corporate governance evaluation score by 5%.
Mid-Term Goals (by 2030, base year 2022)	Enhance energy efficiency and expand renewable energy adoption, aiming for a 30% reduction in carbon emissions.	Maintain employee happiness ranking within the top 30%.	Maintain corporate governance evaluation scores within the 21–35% range.
Short-Term Goals (by 2025, base year 2022)	Improve energy, water, and resource utilization efficiency, aiming for a 2% reduction in carbon emissions.	Maintain employee happiness ranking within the top 30%.	Maintain corporate governance evaluation scores within the 36–50% range.

1.1 Sustainability Vision and Strategy

1.1.1 Sustainability Policy

· Factory Safety and Environmental Protection as a Mission

Through continuous improvements in production processes and environmental management, the company strives toward "energy conservation, carbon reduction, and waste reduction." Strict employee training is implemented to achieve the goal of zero occupational accidents.

· Green Spaces and Bird Habitats

Green space accounts for about 10% of the plant area, providing habitats for multiple bird species. Effective environmental maintenance has preserved biodiversity within the site, and the company received the Bronze Award in the National Industrial Zone Greening Competition for outstanding performance in promoting greening.

· Passing on Technology and Cultivating Talent

In line with corporate development, the company recruits outstanding talent and fosters industry–academia–research collaborations to cultivate professionals. Leveraging core technologies and R&D capabilities, the company enhances new product development and process innovation. Through continuous development of high value-added products via industry-academia cooperation, the company strengthens its competitiveness and provides the best products and services to customers worldwide.

· Business Partners and Diversity/Inclusiveness

The company values stakeholders from all sectors, especially upstream and downstream business partners. Based on integrity and harmony, it promotes interactive relationships and a spirit of sustainable innovation in services, firmly believing that shared prosperity and coexistence represent the true win-win approach.

· Supporting the Underprivileged

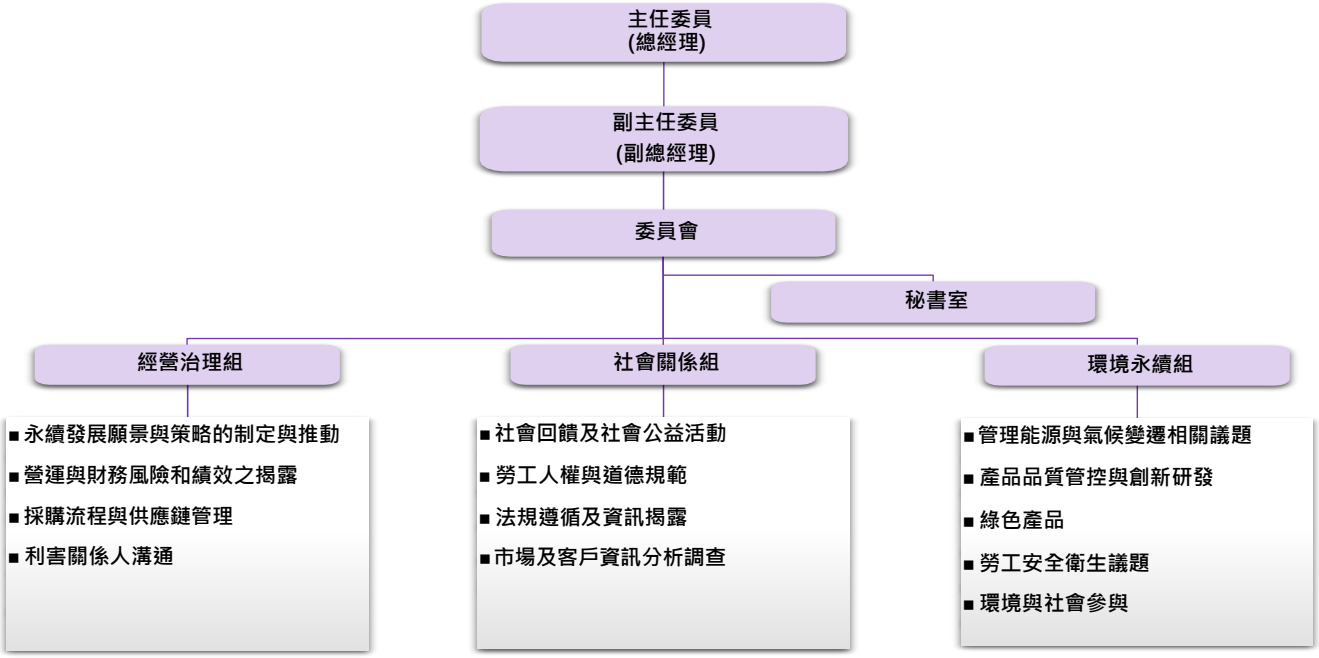
Care and assistance are extended to local communities, disadvantaged groups, and social welfare organizations, with timely financial support to create greater social welfare benefits.

· Fulfilling Corporate Social Responsibility

As a business enterprise, the principle is "taking from society and giving back to society." With the increasing importance of social issues such as environmental protection and human rights, the company seeks not only to maximize profits but also to safeguard the rights and interests of stakeholders, including employees, shareholders/investors, suppliers, neighboring communities, and the natural environment, thereby striving toward sustainable development as its CSR objective

1.1.2 Corporate Sustainability Development Committee Members

- In 2015, the company formally established the Corporate Social Responsibility Committee (later renamed the Corporate Sustainability Development Committee) to coordinate and integrate the efforts of different internal departments. Through the promotion and implementation of CSR, the company aims to achieve long-term sustainable operations.
- The Corporate Sustainability Development Committee is structured into three groups: the "Corporate Governance Group," the "Social Relations Group," and the "Environmental Sustainability Group." Each group consists of department heads serving as members, who report to the Chairperson.
- According to the company's "Corporate Sustainability Development Committee Charter," the Chairperson must be a senior executive who also serves as a member of the Board of Directors. Currently, the company's General Manager serves as Chairperson, with the Secretariat responsible for executing and advancing the Committee's related tasks.



1.1.3 Implementation Status of Sustainability Organization Operations

. To promote and realize the company's sustainability vision and goals, and achieve sustainability performance targets, the company operates through the Corporate Sustainability Development Committee, driving risk management, corporate social responsibility, and environmental protection–related tasks.

Corporate Governance	Social Relations	Environmental Sustainability
· Employee capability development: total training hours company-wide reached 9,325 hours. · Promoted process safety management system; systematically strengthened safety management. . Introduced energy management systems to enhance internal efficiency. . Conducted performance evaluation meetings; encouraged employees to propose ESG-related improvement suggestions. In 2024, 24 proposals were submitted, and the review committee selected priority actions for improvement. . Revised and enhanced internal policies and regulations, such as the "Public Company Compliance Management Policy," strengthening internal control systems, reducing operational risks, and enhancing corporate governance.	. Organized 4 employee comfort programs to reduce stress and enhance well-being, improving employee happiness. . Supported local employment: all 454 employees are domestic hires, with an average service length of 11.05 years; among them, 373 are male and 81 female. . Built good relationships with neighboring communities by regularly participating in community activities. . Expanded collaboration with local elementary and junior high schools, implementing environmental education and sustainability concepts through "Future Seed" programs, benefiting students and community centers. . Sponsored the "Green Food Bank" by the Kaohsiung Environmental Protection Bureau, donating surplus materials and funds to disadvantaged groups, while also supporting indigenous cultural development.	. Regularly monitored community environmental quality and maintained greening. . Promoted green living, reducing greenhouse gas emissions: the factory's 49.6 kW solar power generation system produced 53,160 kWh in 2024. . Promoted energy-saving equipment replacement and upgrades: in 2024, equipment improvements saved 3.48 million kWh of electricity, reducing approximately 165 tons of carbon emissions. . Set targets for reducing waste by 20 MTs per year, with actual reduction reaching 38 MTs per year. . Adopted renewable electricity procurement (estimated 20% renewable usage at the Yong-An Plant I, Plant II).

1.2 Materiality Analysis and Stakeholder Communication

1.2.1 Stakeholder and Material Topics Identification

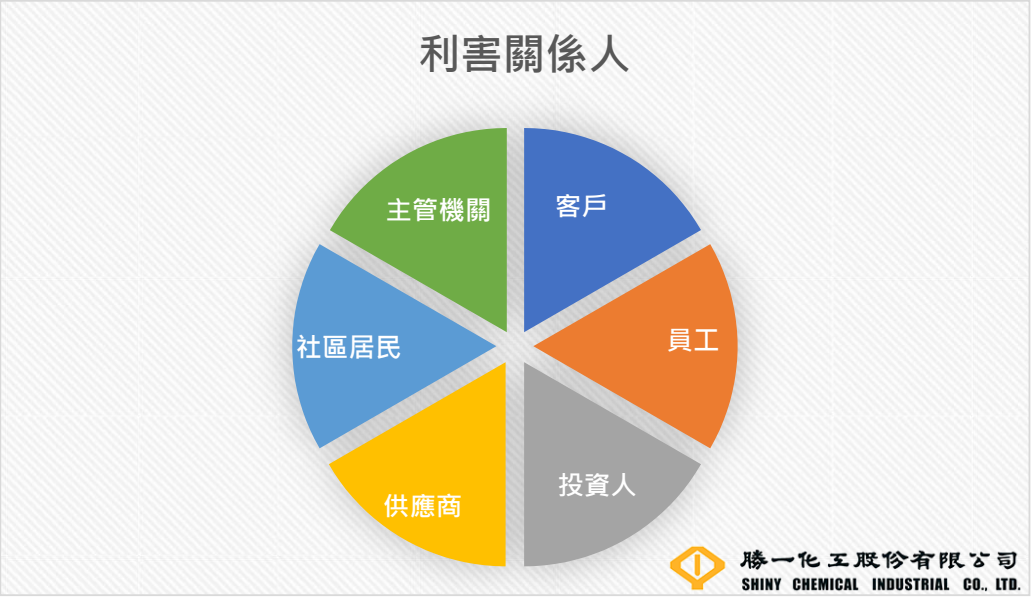
In identifying Shiny Chemical's material topics, reference was made to the GRI Standards 2021: principles of inclusiveness, completeness, reliability, neutrality, comparability, and timeliness, along with five years of non-financial disclosure experience.

Stakeholder identification is regarded as a critical process. It examines the extent to which the company's sustainable development, operational performance, and value creation activities affect the environment and society (including stakeholders). This assessment helps determine the degree of influence stakeholders have on Shiny Chemical's sustainable operations and the extent to which products and services impact external stakeholders. Based on the stakeholder identification results from 2022–2024, six stakeholder categories were identified, and material topics will be updated in 2025 accordingly.

To meet stakeholder expectations and maintain stable and long-term trust relationships, Shiny Chemical gives priority to engaging with stakeholders in effective communication. This is achieved through internal and external surveys and professional evaluations. Stakeholders identified include: customers, employees, investors, suppliers, communities, government authorities, and others. Their expectations and requirements are referenced in alignment with the GRI Standards 2021 reporting principles: inclusiveness, materiality, and completeness.

Through identification, ranking, and confirmation, the company establishes a materiality assessment process. Systematic analysis of stakeholders' sustainability issues is then carried out and integrated with the company's development strategies, forming the basis for sustainability reporting disclosures and enabling the company to meet stakeholder expectations.

The company has established a Stakeholder Communication Section on its official website: https://www.shinychem.com.tw/ to disclose communication channels. Stakeholder communication results are also provided in the appendix "Stakeholder Communication Table."



1.2.2 Stakeholder Communication

Taking into account global trends, national policies, and industry-related issues, and based on the three dimensions of environment, society, and economy (corporate governance), Shiny Chemical has designed 26 major topics and 39 sub-topics as the company's sustainability material issues. These provide a basis for compiling the "Corporate Sustainability Report" and for assessing the degree of importance of sustainability issues

Using a 5-point scale, the company identifies the level of concern and influence of each stakeholder, where "1" indicates the lowest level of concern or influence, and "5" indicates the highest. The analysis is used to evaluate the materiality of sustainability issues. In line with the three main aspects (economy, environment, and society—including human rights), relevant corrective actions are undertaken where needed.

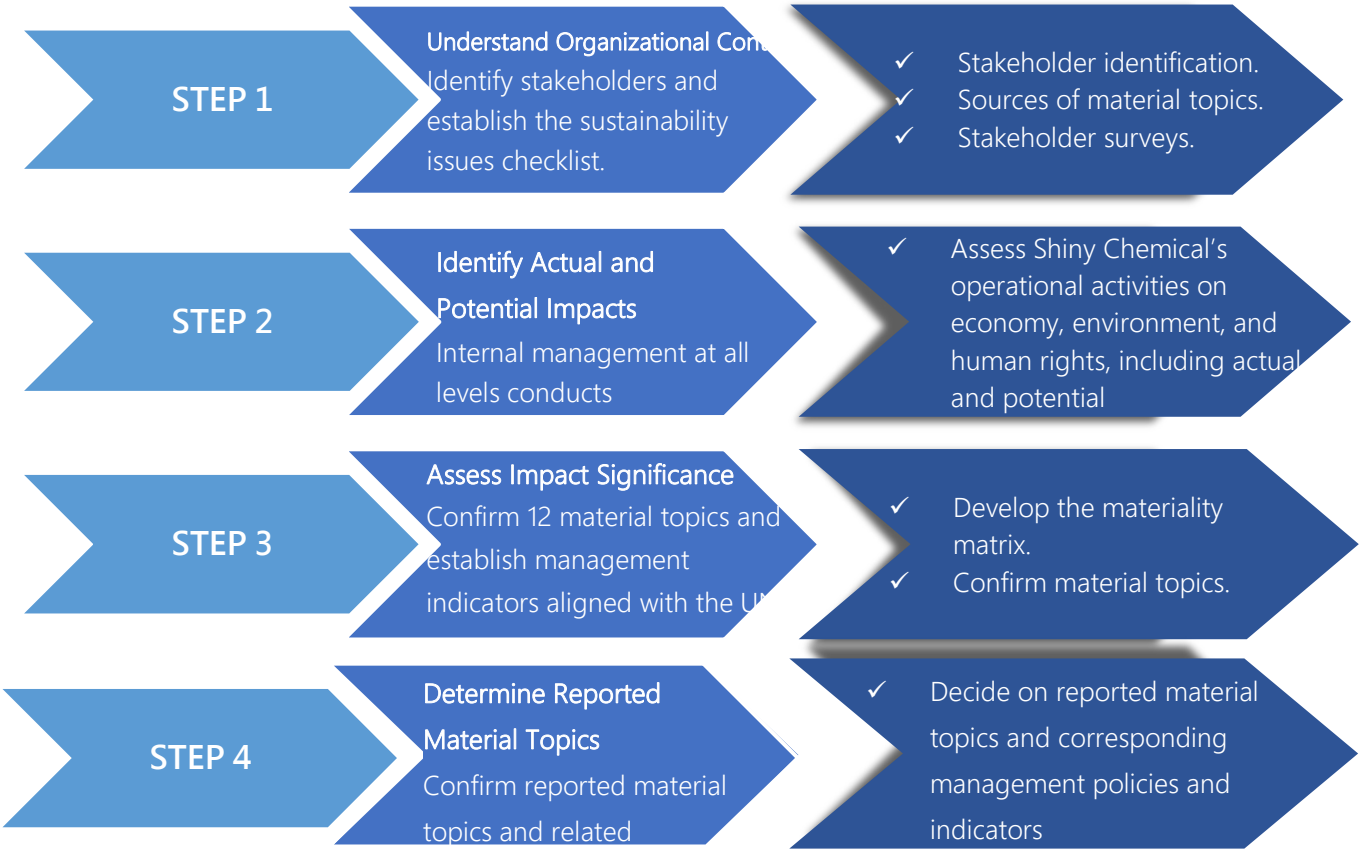
Stakeholder Communication and Material Issues

Importance to Shiny Chemical	Communication Method	Frequency	Related Material Topics
Shareholders' support is the foundation of Shiny Chemical's sustainable management.	Shareholders' meeting	Annually	Business performance, corporate governance, integrity management, risk management, technology and R&D, legal compliance
	Publication of annual report		
	Publication of sustainability report		
	Publication of financial report	Quarterly	
	Investor conference	As needed	
	Company website		
	Investor mailbox		
Employees are Shiny Chemical's most valuable assets, and also the foundation of sustainable operations.	Publication of sustainability report	Annually	Workplace health and safety, labor rights, personal data protection, labor-management communication, career development, talent recruitment and retention, compensation and benefits
	Occupational Safety and Health Committee Meetings	Quarterly	
	Labor-Management Meetings		
	Employee Welfare Committee Meetings		
	Suggestion and Improvement Mechanism	As needed	
	Company Announcements		
	Employee Psychological Counseling and Assistance		
	Employee Mailbox		
Shiny Chemical is committed to providing excellent quality and services, aiming to better align with customer needs and expectations.	Customer Satisfaction Survey	Annually	Risk management, supplier management, climate change, technology and services, integrity management, green products, customer service, intellectual property management
	Publication of Sustainability Report		
	Customer Audits	As needed	
	Customer Systems		
	Business Meetings		

Importance to Shiny Chemical	Communication Method	Frequency	Related Material Topics
Suppliers are important partners in Shiny Chemical's operations. Through close collaboration, both sides pursue corporate sustainability.	Supplier Evaluation	Annually	Procurement policy, integrity management, supplier management, risk management
	Publication of Sustainability Report		
	Supplier Audits	As needed	
	Supplier Business Meetings		
Government agencies: Shiny Chemical complies with government regulations and cooperates in inspections and supervision.	Publication of Sustainability Report	Annually	Water resources management, pollution prevention, labor rights, energy management, integrity management, regulatory compliance, climate change, corporate governance, workplace health and safety, greenhouse gas emissions
	Official documents, emails, and meetings	As needed	
	Announcements and official orders		
	Advocacy sessions and public hearings		
Shiny Chemical actively engages with local communities and organizations, fulfilling corporate social responsibility.	Company Website	As needed	Pollution prevention, industry-academia collaboration, water resources management, community engagement
	Management Department External Contact Window		

1.2.3 Materiality Identification Process

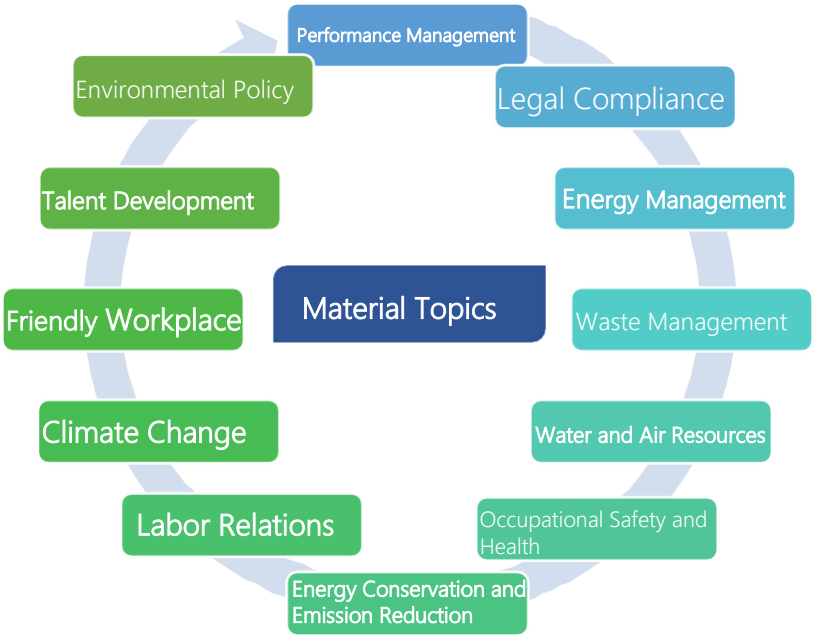
Materiality Identification Process



1.2.4 Results of Materiality Analysis

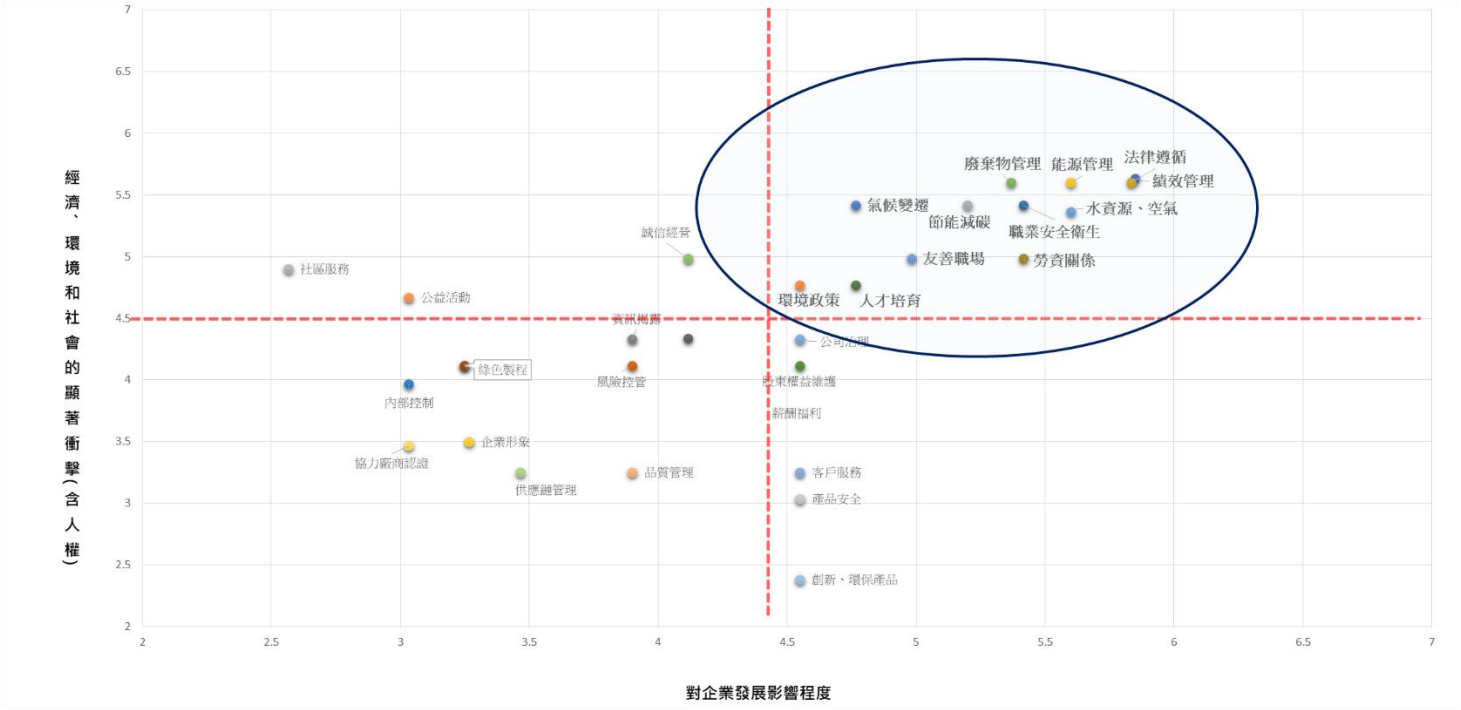
Material Topics

Using the axes of "Significance of Impact on Corporate Development (Likelihood of Occurrence)" (X-axis) and "Degree of Impact on Economy, Environment, and Society (including Human Rights)" (Y-axis), four quadrants were derived. Topics falling into the higher significance quadrants are identified as material topics.
For this reporting year, 12 material topics were identified:



1.2.5 Materiality Analysis Matrix

Shiny Chemical identified 29 sustainability topics of concern to stakeholders. Through the above process and internal joint analysis, 12 material topics were determined. The results of the company's materiality analysis are presented in the following matrix.



1.2.6 Table of Material Topics and the Company' s Value Chain

ESG Aspect	Material Topic	Value Chain Scope of Impact			Operational Significance			
		supplier	Operations	Buyer	Business Growth	Customer Satisfaction	Employee Relations	Operational Risk
Economic	Performance Management	▲	●	▲				v
	Legal Compliance	▲	●	▲				v
Social	Occupational Safety and Health		●	▲			v	v
	Labor Relations	●	●	▲	v		v	v
	Friendly Workplace		●		v	v		
	Talent Development		●	●	v			v
Environmental	Environmental Policy	▲	●	▲		v		v
	Energy Management		●	▲		v		v
	Waste Management		●		v	v		v
	Climate Change	●	●		v	v		
	Energy Conservation and Emission Reduction	▲	●	▲		v	v	v
	Water and Air Resources	▲	●	▲				v

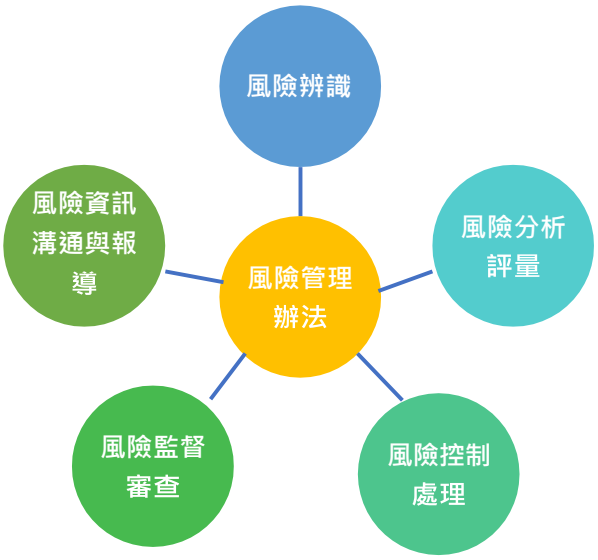
Notes:

- Impact: ● = Direct / ▲ = Indirect
- 「supplier」: Major suppliers providing raw materials, equipment, and related services
- 「Operations」: Shiny Chemical's internal sustainability management policies
- 「Buyer」Customers receiving Shiny Chemical's products and services
- 「v」indicates that the topic at this stage has a substantial impact on the company and is a key focus for Shiny Chemical's promotion of sustainable development.

1.2.7 Material Topics and Risk Management

Risk Management Mechanism

- The company has established a risk management framework covering five major categories: strategic risk, operational risk, financial risk, hazard risk, and other risks. Related material topics are collected and disclosed in the annual sustainability report in accordance with reporting requirements, which mandate the disclosure of 12 risk topics that may potentially have a material impact on Shiny Chemical's mid- to long-term operations. The Sustainability Development Task Force, together with external consultants, conducts risk analysis and assessments to formulate management policies.
- To implement the four major aspects of sustainable development and address significant stakeholder issues as well as emerging risks in the chemical industry, the company's Sustainability Development Committee promotes task force-led risk management. This mechanism identifies potential risks that could affect business operations, assesses the nature of risks, and collaborates with relevant departments to evaluate possible likelihood and impacts. The company periodically reports to the Board of Directors, enabling corrective actions to be incorporated into strategic business decisions. Regulations and management systems cover risk identification, risk assessment and analysis, risk control and management, risk review and audit, and risk disclosure and reporting procedures.



Risk Identification

. For the identified material topics, risk assessments and analyses are conducted on their attributes and impact levels. Appropriate qualitative or quantitative indicators are then established. For risks with potential occurrence, risk levels are evaluated, and Shiny Chemical's impact degree, risk tolerance, and resilience are assessed.

Risk Analysis

. For the material topics classified as high-risk, disclosure factors and response measures are established as shown below. For details on the responses to various risk factors, please refer to the company's official website and the 2024 Annual Shareholders' Meeting Report.

Risk Analysis Matrix

Degree of Impact	Low-Risk Topics	Medium-Risk Topics	High-Risk Topics
High			Performance Management、Legal Compliance
Medium	Climate Change、Friendly Workplace Talent Development	Occupational Safety and Health、Energy Conservation and Carbon Reduction Labor Relations	Energy Management、Waste Management Water and Air Resources
Low		Environmental Policy	
	Low	Medium	High

Likelihood of Occurrence

Risk Control Measures

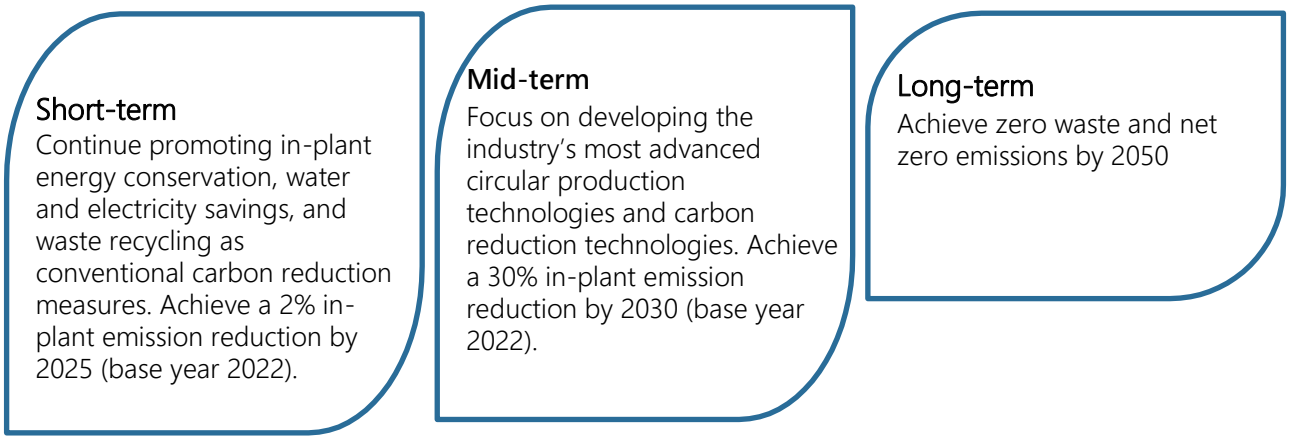
Topic	Risk Assessment Item	Risk Management Unit	Risk Assessment and Response Measures
Environmental	Energy Management	Environment, Health & Safety Dept.	1. Strengthen equipment inspection and overhaul, replace outdated equipment, and purchase energy-saving, high-efficiency equipment; set energy-saving targets to continuously reduce unit electricity consumption.
			2. Promote energy conservation and reduction in processes, enhance energy reuse, adopt waste-heat recovery technology to generate steam for process use, and improve equipment efficiency and energy management.
	Water Resources Management		1. Expand water storage capacity to alleviate the impact of water shortages.
			2. Promote energy-saving water improvement projects to reduce energy consumption and water costs.
			3. Monitor water supply conditions in each plant and arrange transportation of water by tanker trucks to water-scarce plants.
	Greenhouse Gas Emissions Management		1. Conduct product carbon footprint surveys and assess high carbon-emission products to develop corresponding strategies.
			2. Invest in low-carbon product development to reduce product lifecycle carbon emissions.
			3. Compile annual carbon inventory results, benchmark by department, and organize departmental carbon reduction competitions to promote company-wide carbon reduction.
			4. Carry out carbon footprint audits and set short-, medium-, and long-term reduction targets to achieve reasonable GHG management objectives.
	Air Pollution Management		1. Replace heavy-fuel-oil steam boilers with natural-gas boilers to improve boiler efficiency, thereby indirectly reducing GHG emissions and lowering various air pollutants.
			2. Purchase FID (Flame Ionization Detector) equipment to monitor component leakage and air pollution emissions, and regularly assign staff to inspect emission areas to achieve management objectives.
	Climate Change		Collect and analyze international information on climate change and energy risks; with reference to ISO 14001 risk-identification procedures, identify and assess risks and establish mitigation/adaptation strategies to reduce potential climate-change impacts.

Topic	Risk Assessment Item	Risk Management Unit	Risk Assessment and Response Measures
Social Topics	Occupational Safety and Health	Administretion Dept.	1. Establish a safe and hygienic working environment, conduct hazard identification and risk assessment, implement risk reduction measures, and conduct emergency response drills to lower occupational accident risks.
			2. Continue to provide special health examinations for employees engaged in high-risk work, and perform graded health management and follow-ups based on the results.
			3. Establish comprehensive epidemic prevention and protection measures for infectious diseases, while ensuring employee health and smooth operations.
			4. Promote "Workplace Bullying and Harassment Prevention Programs" to prevent workplace bullying, raise awareness of sources of workplace violence, and provide resources for employees facing violent incidents.
	Community Engagement and Feedback		1. Collaborate with academic institutions and organize summer camps, cultivating talent for the chemical industry.
			2. Build good community relations and actively participate in local community activities.
			3. Support local employment — Shiny Chemical does not hire foreign migrant workers, thereby creating job opportunities for local residents, stimulating domestic consumption, and enhancing social vitality.
	Talent Recruitment and Development		1. Provide stable compensation and incentive programs, and establish sound career development systems to encourage employees to pursue professional certifications or licenses.
			2. Utilize multiple and open recruitment channels, and actively participate in campus recruitment events to promote job opportunities and strengthen talent acquisition.
			3. Introduce new hires through referrals from internal staff, offering appropriate referral bonuses as incentives.
Corporate Governance	Strategic Operations	Executive office	1. With sustainable operations as the company's goal, continue developing high-value and differentiated products, and sign long-term contracts with customers and suppliers to maintain stable supply and demand, thereby reducing operational risks.
	Business Ethics		1. Establish a comprehensive corporate governance framework: establish an independent Board of Directors and Operations of the Audit Committee, implement international regulatory standards, and establish effective risk communication mechanisms to strengthen transparency and corporate governance credibility.
	Legal Compliance		1. The Legal Dept. will provide clear legal compliance guidelines, establish contract templates, and conduct regular legal training to reduce legal risks.
	Information Security		1. Establish internal information security management systems to regulate and improve employees' operating practices.
			2. Conduct irregular information security risk assessments to ensure the effectiveness of policy implementation.
			3 Regularly organize cybersecurity attack-defense training sessions with in-class tests to ensure all employees have strong cybersecurity awareness.
			4 Require information security staff to receive external training regularly to stay updated on the latest security policies and knowledge.
			5. Establish information security management equipment and enforce security management measures.
	Financial Risks	Finance Dept	1. Adjust foreign currency positions flexibly in response to funding needs and foreign exchange market trends, enhancing capital utilization efficiency and effectively reducing exchange rate risk.
			2. Manage long- and short-term bank loans and short-term funding needs based on operational requirements. For significant long-term investments, plan to utilize long-term loan rates. Strengthen communication with banks to monitor interest rate trends and secure the most favorable borrowing rates.
			3. Monitor fluctuations in the foreign exchange market while maintaining good relationships with suppliers and customers. If cash flow adjustments significantly increase costs, the company will respond proactively and formulate countermeasures to reduce impacts.
	Raw Material Supply Risks	Procurement Dept.	1. Evaluate and adjust raw material supply strategies to prevent shortages caused by reliance on a limited number of suppliers.
		R&D Dept.	2. Continuously establish direct supply channels to reduce external raw material consumption.
			3. Actively develop new products to strengthen the completeness and diversification of the product portfolio.
			4. Develop high value-added green products
	Occupational Safety and Industrial Safety Risks	Environment, Health & Safety Dept.	1. Implement workplace safety management policies throughout the manufacturing process to ensure that every stage complies with industrial safety requirements.
			2. Introduce process safety management systems to reduce the likelihood of equipment failures, strengthen employee emergency response training, and prevent disasters. Potential incidents can be controlled at an early stage to avoid escalation, thereby safeguarding the safety and health of both on-site and off-site personnel and achieving sustainable business operations.
		Manufacturing Dept.	3. Upgrade process pumps from mechanical seal pumps to seal-less pumps to prevent potential leaks and fires.
			4. Establish an automatic emergency shutdown system for the solvent plant to enhance on-site emergency response capabilities and improve process safety.
		Administretion Dept.	5. In the transportation of raw materials and products, require transport contractors to comply with the strictest transportation safety standards and adopt the safest transportation routes and methods.

1.3 Sustainable Environmental Development Goals

After reaching the milestone of its 45th anniversary, Shiny Chemical will continue long-term efforts in sustainable development while demonstrating the company's competitiveness.
In terms of the environment, efforts focus on energy conservation, water and electricity savings, waste recycling and reuse, and reduction of process effluents. By introducing ISO-14064-1:2018, the company implements greenhouse gas inventories and formulates energy-saving and carbon-reduction plans through the ESG task force.

By continuously innovating advanced processes for green energy, and through circular production technologies, the company expands markets and customers for win-win outcomes, while promoting environmental sustainability and driving new growth momentum.

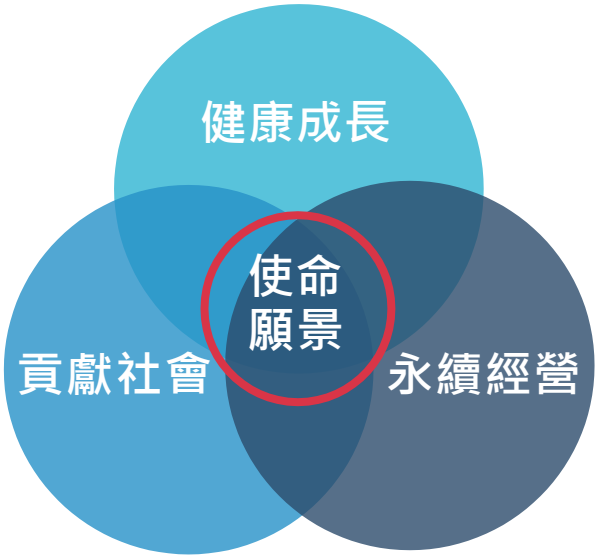


2 Operations and Governance

2.1 Management Philosophy, Organizational Structure, and Corporate Governance

Shiny Chemical's operating model is based on safeguarding shareholder rights, treating shareholders equally, strengthening the effectiveness and operations of the Board of Directors, improving information transparency, and enhancing the Board's structure, while encouraging investors and all shareholders to actively participate in corporate governance. The company's governance framework is formulated in accordance with Article 30-3 of the Company Act and Articles 2 and 178 of the Securities and Exchange Act. Shiny Chemical aims to enhance its corporate governance evaluation, ranking within the top 5% among listed companies.

2.1.1 Management Philosophy



Quality Policy

- Superior R&D
- Premium Quality
- Total Participation
- Customer Satisfaction
- Legal Compliance
- Waste Reduction and Energy Conservation
- Risk Control
- Continual Improvement

. Continuously creating value for people, including customers, shareholders, employees, and society.

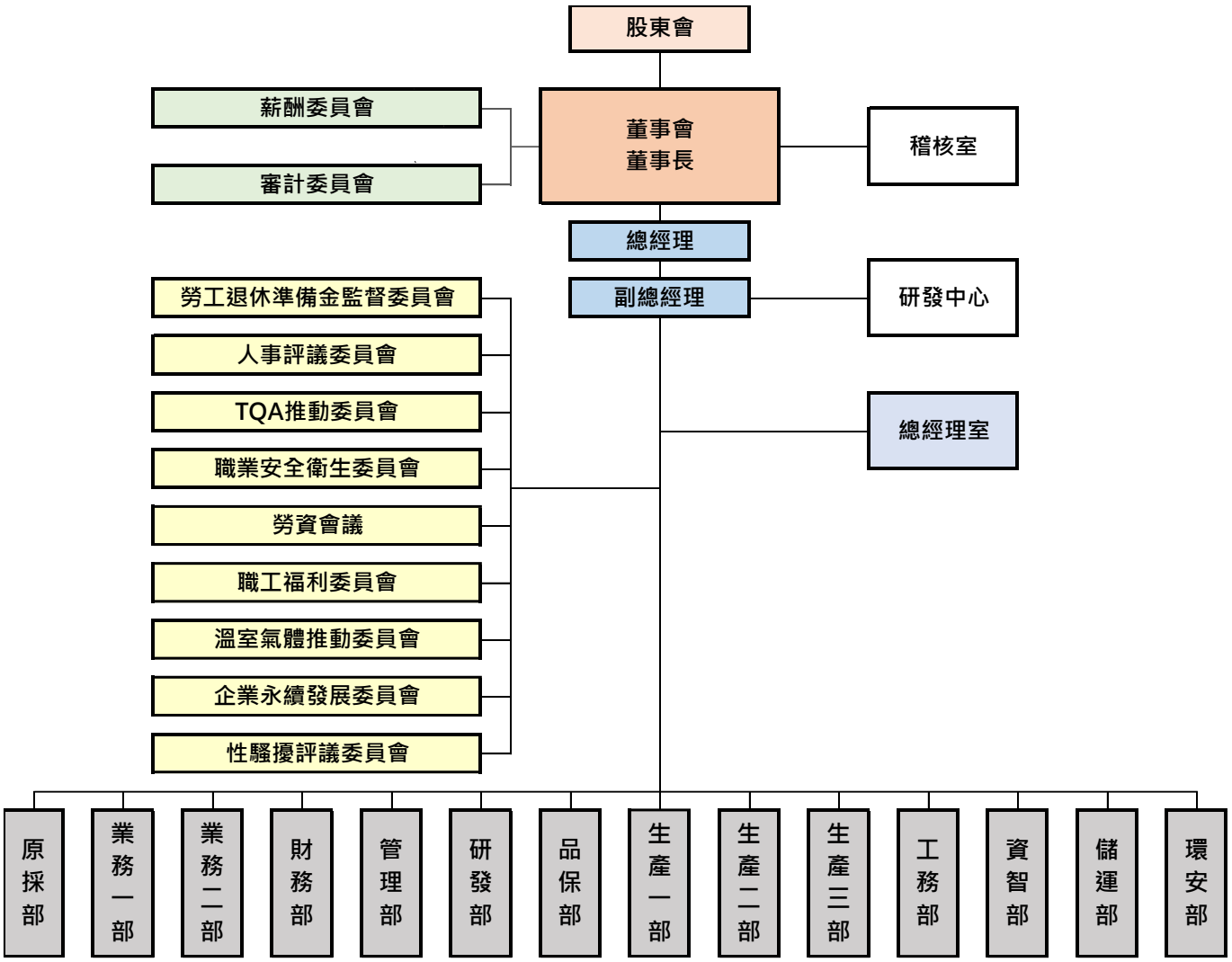
. A safe and pleasant working environment, along with the establishment of an effective and reasonable management system, is also essential. This enables the team to operate with peace of mind and dedication, bringing benefits to the enterprise

. An outstanding management team, with both character and capability as essential qualities for Shiny employees, continuously strives for progress to drive corporate growth and enhance competitiveness.

. Integrity and harmony reflect our attitude toward stakeholders and business partners. We firmly believe that win-win cooperation is the foundation for long-term partnerships. Guided by a spirit of pragmatism, we pursue stable and healthy growth, with the aim of achieving sustainable operations and becoming a first-class enterprise.

2.1.2 Governance Structure and Mechanisms

公司組織圖



2.1.3 Responsibilities of Major Departments

Department	Main responsibilities
Audit Office	To propose and execute audits.
	To evaluate and report on internal control system and internal management performance.
General Manager Office	To set the Company's future development goals and plan strategic cooperation.
	To assist with and execute assigned operational matters from the general manager.
RD Center	Enhance R&D capacity and promote innovative research to achieve the company's sustainable development
	Development of high value-added solvents and circular economy technologies, special metal anti-corrosion coating technologies, and advanced optoelectronics
	Apply composite material technologies and establish core technologies for products with future development potential.
Purcurement Dept.	Responsible for the procurement of raw materials, sourcing of new materials
	commodity market research and analysis.
Sales & Marking Dept.I	Domestic market development; crediting; product sales; quotes; order handling, etc
Sales & Marking Dept.II	International market development; crediting; product sales; quotes; order handling, etc
Finance Dept	Financial operation and planning.
	Fund management and banking business.
	Accounting.
	Production cost calculation and analyses.
Administretion Dept.	Purchasing, facility affairs, general affairs, personnel, computer affairs, etc.
Quality Assurance Dept	In charge of inspection, standard, supervision and control of all incoming materials, finished products and unqualified products.
	Collect and grasp new experience in quality inspection method, apparatus, management between domestic and foreign; moreover, it also passes relevant quality information.
	Statistical analysis of process capacity of each product and development of internal control index.
Research & Development Dept	New product development.
	Improve the operating conditions of the process
	Product quality analysis and establishment of analysis methods.
Engineering Affairs Dept	To check, adjust, equip, maintain electrical machines, hydro system, instrument and DCS (Distributed Control System).
	To assist in the execution of plant construction.
Dept Of Manufacturing I	Solvent production: methanol, formaldehyde alcohol, menthyl acetates, and ether alcohol esters, etc.
Dept Of Manufacturing II	OEM production of Propylene glycol methyl ether & dipropylene glycol methyl ether
	Production of propylene glycol monomethyl ether acetate.
Dept of Manufacturing III	Product mixing, sub-packing. Technical services.
IT & Smart Manufacturing Dept	Warehousing and shipping of raw materials and finished products.
	Information system planning, development and implementation, equipment management and maintenance
	Management of information-related hardware and software equipment, and establishment and management of smart platforms
Storage & Transportation Dept	Warehousing and shipping of raw materials and finished products.
	Storage tank leasing.
Environment, Health & Safety Dept.	To oversee general industrial safety matters at all plants.

2.1.4 Responsibilities of Functional Committees

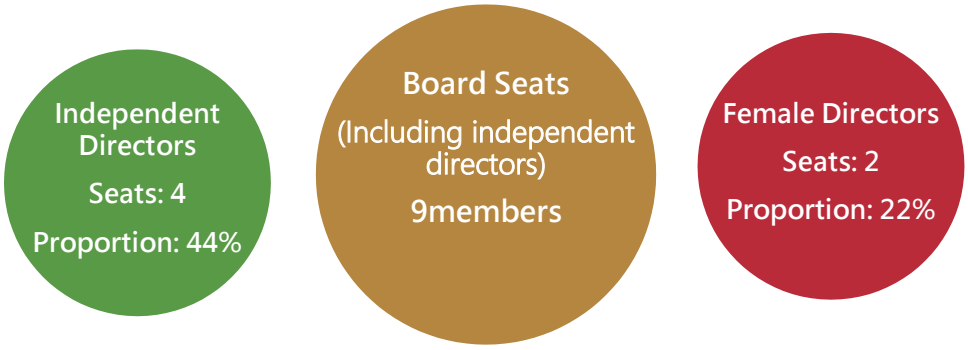
Committee	Main responsibilities
Labor Pension Reserve Committee	1. Deliberate matters related to the suspension of labor pension contributions 2. Review matters related to labor pension contributions 3. Audit matters concerning the deposit and payment of funds 4. Review matters related to the amount of labor pension payments 5. Supervise other matters related to labor pension reserves.
Personnel Review Committee	1. Major rewards and disciplinary actions for employees. 2.Evaluation of major employee performance appraisals.
TQA Promotion Committee	1. Plan, establish, supervise, and implement the TQA system. 2. Review TQA effectiveness. 3. Handle matters related to TQA implementation and certification. 4. Assume management responsibility for the TQA system. 5. Promote awareness of quality, environment, safety, and health.
Occupational Safety and Health Committee	1. Effectively prevent occupational hazards. 2. Promote worker safety and health.
Labor-Management Meeting	1.Coordinate labor-management relations. 2.Promote labor-management cooperation. 3.Improve work efficiency.
Employee Welfare Committee	1. Deliberate, promote, and supervise employee welfare programs. 2. Manage, safeguard, and allocate employee welfare funds. 3. Allocate, audit, and report on income and expenditures of welfare program funds. 4. Handle other welfare-related matters.
Greenhouse Gas Promotion Committee	1. Promote the company's greenhouse gas inventory management activities. 2. Determine organizational boundaries and base year. 3. Approve GHG emission methodologies and quality assurance reports.
Corporate Sustainability Development Committee	1. Establish a sustainability policy statement. 2. Review proposals related to corporate sustainability development plans. 3. Review corporate sustainability performance and effectiveness. 4. Review corporate sustainability reports.
Sexual Harassment Review Committee	1. Ensure a workplace and service environment free from sexual harassment. 2. Adopt appropriate preventive, corrective, disciplinary, and follow-up measures. 3. Handle sexual harassment complaints.

2.1.5 Board Structure and Responsibilities

. In July 2024, Shiny Chemical appointed Mr. Sun Chi-Fa as General Manager. The Chairman no longer concurrently serves as General Manager, thereby ensuring effective separation of ownership and management. The company adopts a candidate nomination system for director elections, with candidate qualifications reviewed in accordance with the Company Act. Directors serve a three-year term. Their primary responsibilities include determining business strategies and operational policies, making investment and reinvestment decisions, approving budgets, and appointing or dismissing managerial officers. In principle, board meetings are held at least once every three months. To ensure board diversity, necessary knowledge and skills, ethical standards, and mechanisms to avoid conflicts of interest, the company has established relevant policies under the "Corporate Governance Best Practice Principles," available on the company website.

. In accordance with the "Corporate Governance Best Practice Principles for TWSE/TPEx-Listed Companies," Shiny Chemical has established its board structure and operations. The Board of Directors is the company's highest governance body, with key responsibilities including supervising business performance, preventing conflicts of interest, and ensuring compliance with applicable laws and regulations. Through the implementation of governance systems, the company enhances board functions, leverages functional committees, maintains transparency of information disclosure, and ensures audit systems can effectively monitor operations, reduce risks, and prevent misconduct, thereby protecting the rights and interests of shareholders and other stakeholders.

. The company values balance in board member diversity with respect to industry expertise, management experience, and gender. In addition, training plans and curriculum for directors are designed with due consideration of both the characteristics of the company's industry and the academic and professional backgrounds of board members.



Composition of the Nine Board Members

Gender	Total	Industry Experience – Number of Members			Professional Expertise – Number of Members		
		Business Management	Leadership & Decision-making	Industry Knowledge	Finance & Accounting	Law	Environmental Protection
Male	7	7	7	6	1	-	2
Female	2	2	2	1	-	1	-
Total	9	9	9	7	1	1	2

. To strengthen the functions of the Board of Directors and improve corporate governance performance, while respecting the rights of shareholders and stakeholders, the company successively established the Remuneration Committee (2013), the Corporate Sustainability Development Committee (2015), and the Operations of the Audit Committee (2020). Through the operations of these three committees, the Board can more effectively address and respond to economic, environmental, and social issues.

. The company has established the "Board Performance Evaluation Measures," approved by the Board of Directors. At the end of each year, performance evaluations of the Board as a whole and of individual directors are conducted for the prior year, ensuring that the Board maintains fresh perspectives to address changes in the business environment. The evaluation results are reported to the Board annually.

. The company's Board of Directors currently consists of nine members: seven directors aged over 65, and two directors aged between 45 and 65. Female directors account for 22%, and the company is committed to increasing this proportion in the future to promote gender equality.

. Board meetings are held at least once every three months. In 2024, the Board convened six times. Details of directors' attendance, committee members' participation, and the matters discussed are disclosed in the company's 2024 Annual Shareholders' Meeting Report.

. The company conducts annual self-evaluations of Board performance. These assessments include evaluation of strategic objectives and management outcomes on various sustainability issues. The results for both 2023 and 2024 were rated as "Good" across all dimensions. Further details are available on the company's official website.

. Over the past five years, Shiny Chemical's board supervisors' shareholding ratio has averaged approximately 43%, well above the Financial Supervisory Commission's minimum requirement of 5% for publicly listed companies of similar scale. At the same time, the pledge ratio of directors' and supervisors' shareholdings remains at 0%. These ratios demonstrate the strong alignment between the Board's interests and those of shareholders, earning shareholders' trust and confidence.

2.1.6 Remuneration Committee

. The Remuneration Committee requires that directors and managers avoid engaging in behaviors that exceed the company's risk tolerance in pursuit of compensation. It ensures the implementation of a competitive and incentive-based remuneration system to attract and retain outstanding talent and continuously improve business performance. Furthermore, the performance evaluations and compensation of directors and managers should be benchmarked against industry standards, while reasonably considering their individual performance, the company's operational results, and future risks. The Committee also establishes clear rules regarding the proportion of bonuses granted to directors and managers, as well as the timing of certain variable compensation payments.

. The Remuneration Committee is composed of four independent directors:
One serves as convener, chairperson of meetings, and external representative of the Committee, with main responsibilities including:
. Regularly reviewing these regulations and proposing amendments
. Establishing and periodically reviewing performance goals and policies, systems, standards, and structures for directors' and managers' compensation
. Regularly evaluating the achievement of directors' and managers' performance goals, and determining the content and amount of their individual compensation

. Annual Key Tasks of the Remuneration Committee:
. Review the monthly fixed compensation received by managers
. Review the annual bonuses granted to managers and employees
. Address other matters assigned by the Board of Directors

Qualification and attendance of the members

Remarks	Name	2022		2023		2024	
		Number of Actual Attendance	Actual Attendance Rate	Number of Actual Attendance	Actual Attendance Rate	Number of Actual Attendance	Actual Attendance Rate
Convener	CHEN, TING-KO	2	100%	2	100%	2	67%
Member	MA, CHEN-CHI	2	100%	2	100%	3	100%
Member	WU, HSIAOYEN	2	100%	2	100%	3	100%
Member	PENG, YU-MIN	Note		1	100%	3	100%

Note: Peng Yu-Min assumed office on May 17, 2023.

2.1.7 Operations of the Audit Committee

In 2020, the company established the "Audit Committee Charter," approved by the Board of Directors, and set up the Audit Committee, which convenes at least once every quarter. The introduction of the Audit Committee system strengthens the credibility of the Board in preparing financial statements, the appointment and dismissal as well as remuneration of external auditors, internal control systems, regulatory compliance, risk management, and overall corporate governance performance.

. The Audit Committee is composed entirely of independent directors.

. It consists of four members, with one serving as convener.

. At least one member possesses expertise in accounting and finance.

. The main responsibilities of the Audit Committee include:

. Ensuring the fair presentation of the company's financial statements

. Selecting, dismissing, and evaluating the independence and performance of external auditors

. Ensuring the effective implementation of the company's internal control system

. Ensuring the company's compliance with applicable laws and regulations

. Overseeing the management of existing or potential risks

· Annual Key Tasks of the Audit Committee:

. Assess the effectiveness of the internal control system

. Evaluate the effectiveness of company policies and procedures within the internal control system (including financial, operational, risk management, information security, and legal compliance controls), and review periodic reports from the Audit Office, external auditors, and management, including risk management and legal compliance.

. Review the financial statements for the 1st to 4th quarters of 2024. These financial statements were audited and reviewed by Baker Tilly Taiwan and found to be free of material misstatements.

Attendance of Independent Directors

Remarks	Name	2022		2023		2024	
		Number of Actual Attendance	Actual Attendance Rate	Number of Actual Attendance	Actual Attendance Rate	Number of Actual Attendance	Actual Attendance Rate
Convener	CHEN TING-KO	4	80%	4	80%	4	80%
Member	MA CHEN-CHI	5	100%	5	100%	5	100%
Member	WU HSIAOYEN	5	100%	5	100%	5	100%
Member	PENG,YU-MIN	Note		3	100%	5	100%

Note: Peng Yu-Min assumed office on May 17, 2023.

2.1.8 Integrity Management

. To implement corporate integrity management and meet the expectations of investors and other stakeholders, the company has established the "Code of Integrity Management," "Code of Ethical Conduct," and "Procedures for Handling Reports of Illegal, Unethical, or Dishonest Conduct." These are thoroughly communicated, strictly observed, and rigorously enforced.

. The "Code of Integrity Management" stipulates that the company's directors, managers, and all employees must not accept any improper benefits or engage in conduct that violates the law or lacks integrity. Its scope includes prohibitions on bribery and kickbacks, illegal political contributions, improper charitable donations or activities, and inappropriate gifts or hospitality. It also requires directors, supervisory units, and managers to avoid conflicts of interest and to establish sound internal control systems for dishonest acts or business activities with high potential risks.

. The "Code of Ethical Conduct" sets forth the ethical standards that the company's directors, managers, and employees must follow when performing their duties. These include avoiding conflicts of interest and improper transfer of benefits, refraining from seeking personal gain, maintaining confidentiality of company and customer information, ensuring fair trade and accurate reporting of transactions, and properly using and safeguarding company assets.

. According to the "Rules of Procedure for Board Meetings," directors with a conflict of interest in any proposal must recuse themselves from discussion and voting, and may not act as proxy for other directors. Furthermore, if a director's spouse, a relative within the second degree of kinship, or a company with a control/subordination relationship with the director has an interest in the matter under discussion, the director is deemed to have a personal interest in that matter.

. To effectively enforce the "Procedures for Handling Reports of Illegal, Unethical, or Dishonest Conduct," the company has established a whistleblowing mailbox on its official website to accept reports from internal and external parties regarding any unlawful (including corruption) or unethical acts, thereby jointly safeguarding the company's reputation for integrity.

. The company also utilizes internal mechanisms such as labor-management meetings and the Personnel Evaluation Committee to prevent employee misconduct.

. In the past three years, the company has had no reported cases of violations against the Code of Ethical Conduct or integrity principles.

Statistics of Cases Violating the Code of Ethical Conduct and Integrity in 2024

Target Item	2022	2023	2024
Complaints Filed	0	0	0

· In 2024, the company organized internal and external training related to employee integrity management, with a total of 103 participants and 474.5 training hours (including courses on integrity management, occupational health and safety for new and existing employees, accounting systems, and internal contr

· Implemented the Integrity Management Project in 2024.
  · The company had no major violations of laws or regulations in 2024.
  · Considering employees' job nature and rank, the company arranged training courses appropriate for their roles.

Employee Training Hours in 2024

job category	Male		Female		Total	
	Headcount	Avg. Hours	Headcount	Avg. Hours	Headcount	Avg. Hours
Senior Executives	19	16	-	-	19	16
Supervisors	29	29	4	28	33	29
Professionals	82	24	39	11	121	20
General Staff	243	21	38	12	281	20
Total	373	22	81	12	454	21

2.1.9 Internal Control

The company has established an internal control system in accordance with the "Regulations Governing Establishment of Internal Control Systems by Public Companies." The annual audit plan is formulated based on the statutory audit items specified in Article 13 of the "Internal Control Regulations" and the results of risk assessments. Follow-up reviews and reports are issued for audit findings. For the Internal Control Statement and further details, please refer to the 2024 Annual Shareholders' Meeting Report.

Item	2022	2023	2024
Planned Regular Training Hours by Audit Office (External)	108 hrs	108hrs	63hrs
Planned Regular Training Hours by Audit Office (Internal)	42hrs	30.5hrs	12hrs
Annual Communication Sessions with Independent Directors	5	5	5
Each December, departments and subsidiaries complete the "Internal Control Questionnaire" in the ERP system and issue a "Departmental Internal Control Statement." The Audit Office compiles these into a "Self-Assessment Report."			
In the auditors' "Internal Control Recommendation Letters" for 2022–2024, no improvement items were identified.			

Business Continuity Plan

To ensure uninterrupted supply to customers and to prevent operational disruptions in the event of disasters, the company has established a Business Continuity Management System in accordance with international standard BS 25999 and formulated the "Business Continuity Management Procedures" for compliance.

Each department analyzes its operating environment to identify events that could disrupt operations, such as equipment failures, power outages, or fires. Based on the likelihood and impact of these risks, priorities are determined, and disaster recovery mechanisms are pre-arranged considering cost-benefit analysis. Emergency response procedures, backup plans, and recovery processes are established to fulfill the company's commitment to uninterrupted customer service.

Accordingly, the company has established 11 Business Continuity Plans. These are reviewed and simulated annually to ensure employees are proficient in the relevant procedures, thereby guaranteeing the promise of uninterrupted supply to customers.

2.2 Operating Performance

- In 2024, Shiny Chemical recorded consolidated revenue of NT$11,056,943 thousand and consolidated net income after tax of NT$1,803,653 thousand. Since 2008, the company has distributed cash dividends annually to shareholders, adhering to a principle of stable dividend distribution. As the company is currently in a growth phase, future cash dividends per share will be adjusted upward depending on annual profitability. For 2024, each common share was granted a cash dividend of NT$2.50 and a stock dividend of NT$2.00.
- In response to rapid technological changes in the industry and increasingly diverse customer needs, the company will continue expanding its R&D scale and fields, effectively integrating resources to strengthen R&D capacity. In addition to product diversification to meet varied customer demands, the company will also expand into new markets and create new "blue oceans," with the goal of accelerating revenue and profit growth.

Sources and Proportion of Consolidated Revenue Unit: NT$ thousand

Service Items / Country	2023				2024			
	Chemical	Rental	Total	%	Chemical	Rental	Total	%
Taiwan	7,708,705	96,586	7,805,291	79	8,476,240	249,052	8,725,292	79
Korea	650,830	-	650,830	7	756,771	-	756,771	7
Vietnam	351,470	-	351,470	4	348,080	-	348,080	3
Thailand	219,155	-	219,155	2	225,166	-	225,166	2
Others	826,164	-	826,164	8	1,001,634	-	1,001,634	9
Total	9,756,324	96,586	9,852,910	100	10,807,891	249,052	11,056,943	100
%	99	1	100	-	98	2	100	-

- Operating Performance in the Past Three Years

Unit: NT$ thousand

Year	2022	2023	2024
Operating Revenue	11,345,083	9,852,910	11,056,943
Operating Costs	7,964,469	6,697,290	7,454,524
Gross Profit	3,380,614	3,155,620	3,602,419
Operating Expenses	1,284,204	1,314,970	1,486,188
Operating Income	2,096,410	1,840,650	2,116,231
Net Income Before Tax	2,247,195	1,925,360	2,199,119
Income Tax Expense	421,878	346,899	395,466
Net Income After Tax	1,825,317	1,578,461	1,803,653

- Dividend Distribution

Unit: NT$

Year	2022	2023	2024
Cash Dividend	3.60	3.20	2.50
Stock Dividend	-	-	2.00
Total Dividend	3.60	3.20	4.50
Payout Ratio (%)	49%	51%	62%

· Government Subsidies

According to Article 10 of the Industrial Innovation Act (April 2010), a company may deduct up to 15% of its R&D expenditures from its current year's corporate income tax payable, provided that such deduction shall not exceed 30% of the company's total income tax payable for that year.

The company's deductible tax amounts declared under the R&D investment tax credit for the past five years are as follows:

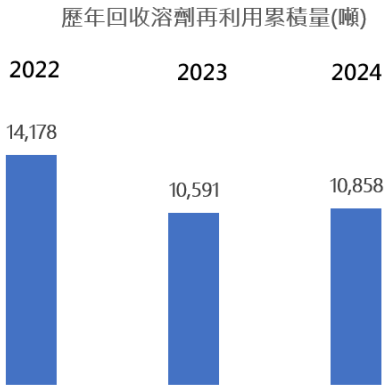
R&D Investment Tax Credits (Past Five Years) Unit: NT$ thousand

Year	2020	2021	2022	2023	2024
Current Year Tax Credit Utilized	5,322	6,210	7,655	8,475	11,112

2.2.1 Sustainable Circular Economy

· Solvent Recycling

In response to the ongoing global issues of environmental degradation and climate change, the company seeks to reduce environmental impact by recycling solvent waste generated in the processes of its customers (semiconductor and panel manufacturers). The waste solvents are collected by its subsidiary, E-Shine Advanced Chemicals Co., Ltd., and then transported back to Shiny Chemical for purification. The purified solvents are processed into industrial-grade products, allowing the waste solvents to re-enter the market supply chain for applications such as chemical blending and coatings for both consumer and industrial use. This approach reduces the consumption of petrochemical raw materials and conserves the Earth's natural resources.



2.3 Tax Policy and Management

2.3.1 Tax Guidelines and Policies

. To pursue sustainable development and fulfill corporate social responsibility, the Company has established the following tax guidelines and policies to ensure effective tax governance:

. To pursue sustainable development and fulfill corporate social responsibility, the Company has established the following tax guidelines and policies to ensure effective tax governance:

. Disclose tax information in financial statements in compliance with regulations to ensure transparency.

. Maintain a relationship of mutual trust and honest communication with tax authorities.

. Consider tax implications in all major transactions and decisions to ensure effective risk control.

. Strengthen tax expertise through continuous talent development and training.

2.3.2 Tax Governance, Control, and Risk Management

. The Finance Dept. is the responsible authority for the Company's tax governance. When handling various tax filings in compliance with tax laws, all matters are reported in accordance with regulations and approvals are obtained. At the same time, the Company supports government policies that promote corporate innovation, R&D, and tax incentives. The Company is committed to tax transparency and, when necessary, engages or consults external professional advisors to ensure full compliance with tax regulations and filing obligations.

2.3.3 Tax Issues and Stakeholder Communication

. In addressing tax-related operational risks, the Company is committed to improving tax expertise and continuously providing employee training to ensure personnel are capable of handling tax operations. When encountering unfamiliar tax matters, the Company proactively communicates with relevant tax authorities (including Local Tax Collection Offices, National Taxation Bureau, and other tax-related authorities). When necessary, the Company engages or consults external professional advisors to ensure accurate compliance with tax regulations and filing obligations. This reduces the risk of potential legal sanctions, financial losses, or reputational damage arising from non-compliance with tax laws, thereby minimizing overall tax risks.

. The Company's operations are based in Taiwan, where the applicable income tax rate is 20%, and the income tax accounted for 3.6% of revenue in 2024.

. As of the end of 2024, the Company had received no complaints.

2.4 Information Security Management and Implementation Results

. An up-to-date information security management mechanism has been established, following strict control standards and protective measures. Through standard operating procedures and continuous improvement of the ERP system, knowledge and experience can be sustainably transferred, preventing monopolization while ensuring information security. This guarantees the protection of both company and customer information, fully safeguarding the privacy of all stakeholders.

. In accordance with Article 9-1 of the Regulations Governing Establishment of Internal Control Systems by Public Companies (FSC Ref. No. 11003656544), the Company has actively appointed dedicated information security officers and currently has two such personnel in place.

. To safeguard corporate interests and ensure sustainable operations, the Company has established an "Information Security Management Procedure" based on internal IT systems, equipment, and networks, with reference to the Cybersecurity Management Act and international information security standards (ISO 27000 series). This serves as the guideline and benchmark for the Company's information security execution, including awareness-building among employees and continuous updates of security technologies.

2024 Information Security Project Implementation Results

Category	Project	Description	Implementation Method	Implementation Period	Implementation Status
Information Security Enhancement	Customer Information Security Assessment	Continuous audits and remediation on customer platforms to strengthen security protection	Implement corrective measures based on customer audit items and conduct re-assessment	2024	Achieved a score of 97, effectively maintaining supplier evaluation standards and enhancing security protection
Information Security Enhancement	Employee Awareness Enhancement	Training and testing in the first half; drills and courses in the second half	Conduct training courses, design testing mechanisms, arrange practical drills	2024	High employee participation rate; courses and drills completed, effectively improving awareness
Information Security Enhancement	Red Team Exercise	External cybersecurity firm conducted penetration tests, with remediation of vulnerabilities; applied for subsidies from the Ministry of Digital Affairs	Engage external firm for testing; internal team performed fixes	2024.9~ 2024.12	Identified and fixed multiple vulnerabilities, enhancing overall protection
Information Security Enhancement	Cybersecurity Product Testing	Testing security operation systems, including vulnerability scanning, firewall, antivirus, and network management	Build test environment, implement product modules, test and evaluate functionality and stability	2024.12~ 2025.12	Full implementation expected in 2025, improving monitoring and real-time defense
Equipment Upgrade	Core Network Equipment Expansion	Upgrade internal backbone network to meet growing demand	Replace telecom equipment and upgrade bandwidth to 10G	2024	Replace telecom equipment and upgrade bandwidth to 10G

2.5 Customer Value

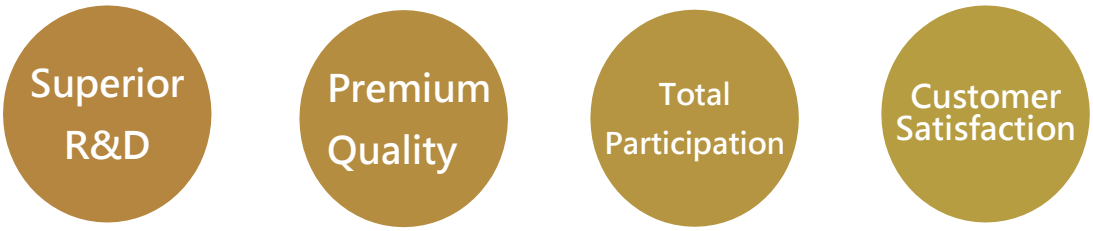
2.5.1 Innovation Management

. Main Products and Markets
Shiny Chemical's main products include electronic-grade solvents used for cleaning in semiconductor processes and LCD displays, as well as industrial-grade solvents applied in coatings, synthetic resins, and printing inks. The company's products comply with EU RoHS testing standards.
During the product development stage, Shiny Chemical strives to avoid the use of hazardous substances to minimize environmental impact. The company continuously updates Safety Data Sheets (SDS) and implements chemical classification management to reduce risks and ensure safety. In 2024, the company recorded zero incidents of violations of major health and safety regulations related to products and services.

. Adhering to the philosophy of "Winning through R&D, Quality First, Full Participation, and Customer Satisfaction," the company continuously innovates, optimizes processes, reduces waste, conserves energy, and enhances production capacity. The goals are to diversify products, develop green products, meet customer needs, and strengthen product competitiveness.

· Through innovative research, the company continues to expand capital expenditures to improve process technologies and explore possibilities for diversified operations. This expansion increases production capacity, drives the upstream supply chain, and creates local employment opportunities.

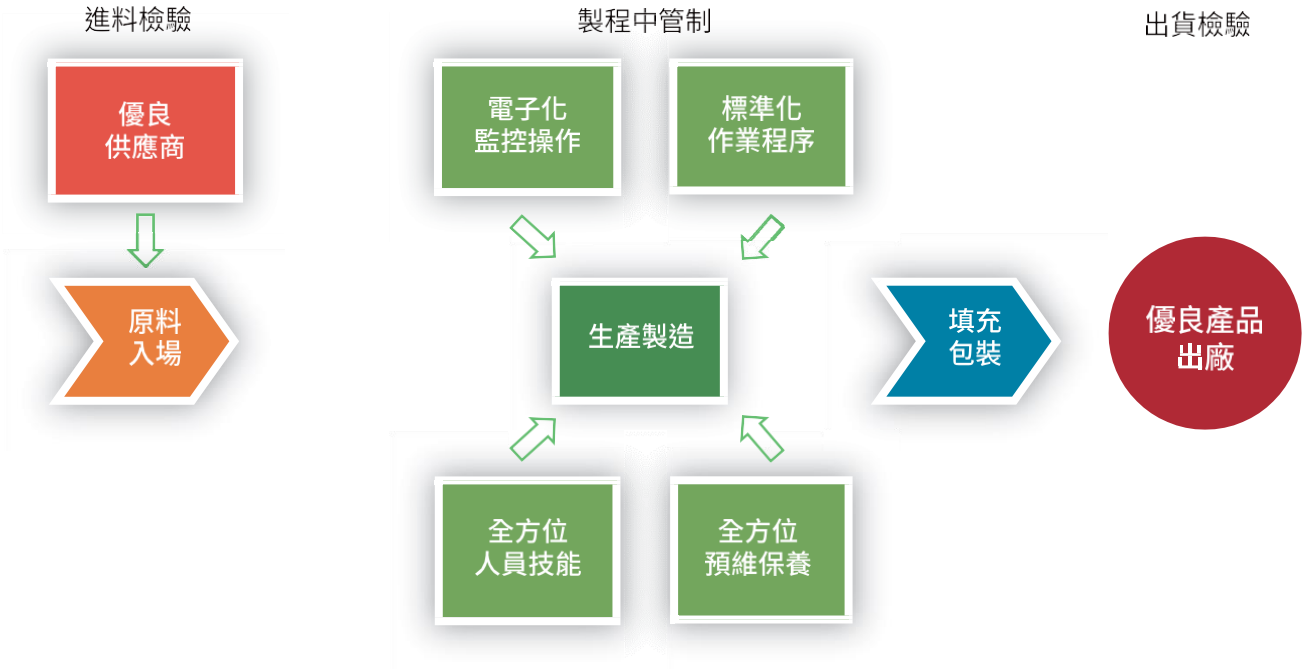
. Shiny Chemical has engaged external expert teams to integrate workflows and information streams across production sites, back-office administration, and business units.A comprehensive review of processes is conducted to identify optimal solutions for operational bottlenecks. At the same time, management models are continuously innovated and improved to achieve safer and more efficient production processes.



2.5.2 Product Quality and Safety

- Shiny Chemical conducts regular domestic and international certifications in quality and environmental management to ensure product safety and control environmental risks. The company also complies with EU RoHS/REACH chemical regulations as well as relevant domestic standards, providing customers with the highest-quality and safest products.
- To ensure customers receive superior-quality products and to uphold responsibility for product quality and safety, the company implements comprehensive quality control procedures covering every stage—from raw material procurement, storage, R&D, and production, to product delivery and transportation to customers.
- In the R&D management process, all new formulations and product developments undergo “new chemical” assessments to determine whether risks involve restricted substances under regulations such as RoHS and REACH. The company also applies the QRISK procedure to assess potential hazards and risks during production, service, and use of products, thereby enabling preventive measures in advance. These practices are applied across all current products and services.
- “Quality First” is the company’s fundamental quality principle. Shiny Chemical complies with international quality system standards and has successively implemented comprehensive quality management initiatives such as “5S,” “TQM,” and “BCM.” The company has also obtained certifications including ISO 9001, ISO 14001, and ISO 45001.

Smart management system



Company Quality Management Workflow

Workflow	Quality Management
Raw Materials – Procurement and Acquisition	• The Manufacturing Dept. and Sales Dept. formulate production and sales plans. • The Import Section procures raw materials according to the production and sales plans after supplier evaluation. • The Import Section conducts supplier contract reviews. • The QC Dept. performs raw material sampling and testing according to inspection procedures to ensure raw material quality. • The Materials Dept. handles receipt and storage of raw materials. • Raw materials are verified against the Chemical Substance Checklist.
Process Operations	• The QC Dept. performs sampling and testing according to relevant procedures. • Operators of the Manufacturing Dept. follow the process control table and operation management records, using testing results as the basis for process control. • If the process becomes unstable or exceeds control limits, adjustments are made according to relevant procedures.
Finished Products – Testing and Storage	• The QC Dept. performs sampling and testing of finished products according to inspection procedures to ensure product quality. • If test results are non-compliant, a Corrective Action Notification is issued to inform relevant units for handling. • The Materials Dept. stores products in accordance with procedures and arranges shipment following relevant processes. • Restricted substances are checked prior to shipment.
Product Transportation	• Transportation routes are surveyed and trial runs are conducted in advance. • Vehicle safety labels comply with regulations. • Reporting and management are conducted in accordance with the “Regulations on the Transport and Management of Toxic Chemical Substances.”
Management – Review and Improvement	• Internal quality audits are conducted on both a regular and ad hoc basis. • Management regularly convenes review meetings to examine the operation of the quality management system, ensuring its applicability and effectiveness. • The QRISK management system is used for monitoring and control.

. Product Safety Labeling and Safety Regulations

. Regarding product safety labeling, the company has labeled all products for hazards in accordance with domestic legal requirements and prepared Safety Data Sheets (SDS). The SDS include information on chemicals and suppliers, hazard identification, component identification, first aid measures, firefighting measures, and more, thereby effectively communicating product safety information to customers. In 2024, the company had zero incidents of non-compliance with regulations related to product and service information and labeling, as well as zero incidents of non-compliance with marketing and communication regulations.

. The company's main products are organic solvents, all of which undergo hazard assessment and classification management. In the past two years, the number of product labeling violations was zero.

. Raw Material Risks

. Carefully evaluate suppliers and actively develop new sources of materials to avoid reliance on a limited number of suppliers

. Continuously improve process technologies to reduce raw material consumption.

. Actively develop new products to enhance the integrity and diversity of the product portfolio.

. Develop high value-added green products.

Production Volume and Value in the Past Two Years

Unit: MTs / Thousand NTD

Product Category	2023		2024	
	Production Volume	Production Value	Production Volume	Production Value
Acetates	25,471	672,244	26,719	703,956
Ether Esters	16,636	460,626	20,089	547,921
Electronic-Grade Solvents	121,833	5,266,627	142,193	6,297,678
Formalin	2,435	9,972	4,812	22,743
Urea Resin	3,312	42,815	3,396	38,314
Mixed Solvents	505	2,423	295	1,512
Total	170,192	6,454,707	197,504	7,612,124

. Industrial Safety and Transportation Risks

. In the product manufacturing process, implement workplace safety management policies to ensure that every stage complies with industrial safety requirements.

. Upgrade process pumps from mechanical seal pumps to seal-less pumps to prevent potential leaks and fires.

. stablish an automatic emergency shutdown system at the solvent plant to enhance on-site emergency response capabilities and improve process safety.

. During the transportation of raw materials and products, require transport contractors to comply with the strictest transportation safety standards and adopt the safest transportation routes and methods.

2.5.3 Customer Relationship Management

. The company's electronic-grade solvents are primarily used as cleaning agents in semiconductor processes and liquid crystal display (LCD) manufacturing. Its customer base includes the semiconductor and panel segments of the electronics industry.

. Shiny Chemical is committed to implementing various environmental protection measures. In accordance with the Resource Recycling and Reuse Act, the company recycles waste solvents generated by customers using its products, reprocesses them, and achieves the goal of resource regeneration and circular utilization.

. By strengthening strategic applications and marketing systems, the company closely monitors customer developments and industry trends, enhances customer relationships, and actively develops downstream customers to expand market share.

. To ensure customers receive high-quality products and to uphold responsibility for product quality and safety, the company implements comprehensive quality control procedures throughout the entire process—from raw material sourcing, storage, R&D, and production, to product delivery and transportation to customers.

Customer Satisfaction Survey

. The company conducts an annual customer satisfaction survey, reviewing and improving issues important to customers, which serves as a reference for business strategy planning.

. According to the results of 140 customer satisfaction surveys conducted in 2024 (with a maximum score of 10), customers generally gave positive evaluations of the company's products and services.

Product and Service – 8 Key Indicators and Scores

Indicator Item	2022	2023	2024
Cooperation of Sales Personnel	9.65	9.77	9.78
Ability to Handle Customer Feedback	9.58	9.67	9.73
Timeliness in Handling Customer Feedback	9.58	9.69	9.72
On-Time Delivery	9.62	9.76	9.75
Cooperation of Transportation Vehicles	9.59	9.59	9.81
Product Quality	9.6	9.78	9.81
Service	9.56	9.63	9.66
Overall Corporate Image	9.64	9.73	9.78
Average	9.60	9.70	9.76

. In 2024, a total of 7 customers conducted audits on Shiny Chemical, resulting in the implementation of 50 improvement actions.

2024 Customer Audit Statistics

Customer	Production Operations Management	EHS Management	Product Quality	ISO Quality System	Change Management	Emergency Response Management	Supply Chain Management	Labor Management	Suggestions/ Deficiencies (No. of Items)	Converted to CAR (No. of Items)
A01	●	●	●	●					6	0
A02	●	●		●	●		●		8	0
A03	●		●		●				8	0
A04	●		●					●	6	0
A05	●			●	●		●		4	0
A06			●				●		11	0
A07	●	●					●	●	7	0

Customer Complaint Handling

2024 Customer Complaint Statistics Table

Department	Q1	Q2	Q3	Q4	Total
Domestic			1	2	3
Export	1	2	1		4
Electronic Materials	4	1	9	3	17
Total	5	3	11	5	24

Customer Complaint Handling Process

Process Step	Description
Customer Complaint	• Customers report complaints (including packaging, transportation, quality abnormalities, etc.) to the Sales Dept. contact window.
Preliminary Response	• The Sales Dept. confirms the content of the complaint and fills out a "Customer Feedback Handling Form" to reply to the customer.
	• If, after assessment by relevant company units, the case is determined to be a formal complaint, the Sales Dept. immediately completes a "Customer Complaint Handling Form" to officially establish the case and provide the customer with an initial solution.
Investigation and Handling	• After the "Customer Complaint Handling Form" is completed by the Sales Dept., relevant internal departments assist with corrective actions.
	• If the issue involves internal operational errors, a "Corrective Action Notification Form" is issued to the responsible unit (e.g., Production Dept. or Materials Dept.). The responsible unit investigates the problem, drafts corrective measures, and a follow-up team monitors case progress.
Result Report	• The responsible unit identifies the root cause and provides a report and corrective measures. After internal approval, the Sales Dept. responds to the customer with the company's investigation results and proposed solutions.
Improvement Tracking	• The follow-up team verifies the effectiveness of preventive measures taken by the responsible unit. The case can only be closed after internal review confirms the improvement results and the customer agrees.

Customer Privacy

. The company has established regulations for managing confidential information. Confidentiality measures are implemented for matters requiring secrecy during operations or interactions with customers. As a result, there have been no complaints regarding infringement of customer privacy rights or loss of customer data to date.

Target Item	2022	2023	2024
Customer Privacy Breaches	0	0	0

2.6 Sustainable Supply Chain Management

Shiny Chemical continuously optimizes its supplier management processes by strengthening supplier selection mechanisms, striving to reduce negative environmental and social impacts, and ensuring suppliers meet standards in labor conditions, environmental practices, and ethical operations. This reflects the company's commitment to sustainable supplier management responsibilities.

To ensure honest and sustainable business partnerships, we rigorously implement sustainable supplier management. On the policy and regulatory front, Shiny Chemical has established the *Supplier Management Guidelines*, *Environmental, Safety and Health Policy*, and other relevant policies, strictly adhering to these standards.

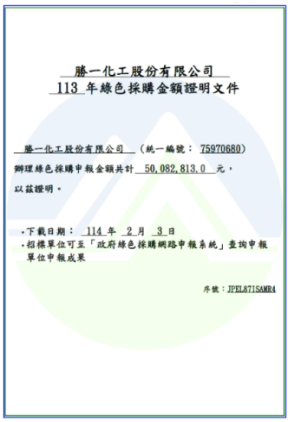
Shiny Chemical has long recognized the importance of environmental protection and management, viewing supplier management as a critical component of corporate sustainability. We require suppliers, in the course of providing services, to understand and comply with Shiny Chemical's *Code of Ethical Conduct* and *Code of Integrity Management*. Gradually, environmental, social, and governance (ESG) requirements are incorporated into supplier standards, encouraging suppliers to jointly address issues of social responsibility and environmental protection. By promoting sustainable development within the industry, we reinforce the implementation of corporate social responsibility.

2.6.1 Achievements in Sustainable Supplier Management

. Green Procurement Program

In 2024, the company began actively implementing a Green Procurement Program, planning to prioritize eco-labeled products and integrate the concept of green procurement, with the goals of energy conservation, carbon reduction, and lowering operational costs. We also cooperated with the government's online green procurement reporting project. The main green products purchased included building materials, office equipment, and others.

In 2024, self-assessed purchases of government-certified green products totaled NT$ 50,083 thousand, with plans to increase the amount of green procurement each year to further contribute to environmental protection.



勝一化工股份有限公司
113 年綠色採購金額證明文件

勝一化工股份有限公司 （統一編號： 75970680）
辦理綠色採購申報金額共計 50,082,813.0 元，
以茲證明。

•下載日期： 114 年 2 月 3 日
•招標單位可至「政府綠色採購網路申報系統」查詢申報單位申報成果

序號：JPELSTISAMR4

Supplier Sustainability Management Performance	2024 Implementation Status Number / Percentage
Contractors signed the *"Contractor Compliance with Shiny Chemical Co., Ltd. Occupational Safety Commitment"* and ensured compliance with on-site regulations and completion of workplace safety training.	2,558 participants
Long-term partner suppliers are required to sign the *"Supplier Corporate Social Responsibility Statement"*, declaring commitment to *"Labor Rights Protection"* and *"Occupational Safety, Health, and Environmental Policy"*, to implement environmental protection, energy conservation, resource efficiency, and sustainable corporate development.	17 /100%
A total of 46 suppliers were evaluated in 2024: Grade A – 22 (48%), Grade B – 22 (48%), Grade C – 2 (4%).	Grade A/ 48% Grade B/ 48% Grade C/ 4%
Procurement prioritizes local Taiwanese suppliers and after-sales service efficiency, giving preference to nearby and high-quality sources.	Northern Taiwan / 5% Central Taiwan / 6% Southern Taiwan /89%

2.6.2 Management of Raw Materials

In order to enhance suppliers' awareness of corporate social responsibility (CSR), the Company provides guidance to all suppliers on issues such as labor rights, human rights, business ethics, and conflict minerals. These requirements are incorporated into contracts or agreements with suppliers, which are duly signed. Furthermore, compliance is tracked through the annual supplier self-assessment forms to ensure that suppliers strictly adhere to the commitments.

3 Implementing Green Shiny

3.1 Climate Change Risks and Responses

Shiny Chemical promotes climate-related financial disclosures through the Sustainability Development Committee in line with the Task Force on Climate-related Financial Disclosures (TCFD). Its core framework is outlined below, disclosing the risks and opportunities arising from climate change, and formulating countermeasures and action plans to mitigate impacts:

In its production processes, Shiny Chemical adopts the principles of toxicity reduction, energy conservation, and carbon reduction to prevent potential pollution, excessive energy use, and hazards. The company replaces highly toxic raw materials with non-toxic or low-toxicity alternatives, uses biofuels instead of heavy oil to reduce carbon emissions, installs solar power generation facilities as alternative energy, and implements multiple water- and energy-saving measures. Through the ESG Task Force, the company formulates various energy-saving and carbon-reduction plans, moving toward a 30% in-plant emission reduction by 2030 and achieving net zero by 2050.

Following the TCFD Recommendations (Recommendations of the Task Force on Climate-related Financial Disclosures), Shiny Chemical discloses climate-related information under four thematic areas—Governance, Strategy, Risk Management, and Metrics & Targets—as explained in the indicators below:

Framework	Disclosure Indicators
Governance	The board of directors, as the company's highest governance body, oversees climate-related risks and opportunities.
	Description of management's role in assessing and managing climate-related risks and opportunities.
Strategy	Identification of short-, medium-, and long-term climate-related risks and opportunities.
	Impact of climate-related risks and opportunities on business, strategy, and financial planning.
	Potential impact of different climate scenarios on business, strategy, and financial planning.
Risk Management	Processes for identifying and assessing climate-related risks.
	Processes for managing climate-related risks.
	How processes for identifying, assessing, and managing climate-related risks are integrated into the company's overall risk management.
Metrics & Targets	Metrics used to assess climate-related risks and opportunities.
	Disclosure of Scope 1, Scope 2, and Scope 3 greenhouse gas emissions.
	Targets set for climate-related risks and opportunities, and performance against these targets.

3.1.1 Climate Change Adaptation and Mitigation Strategy

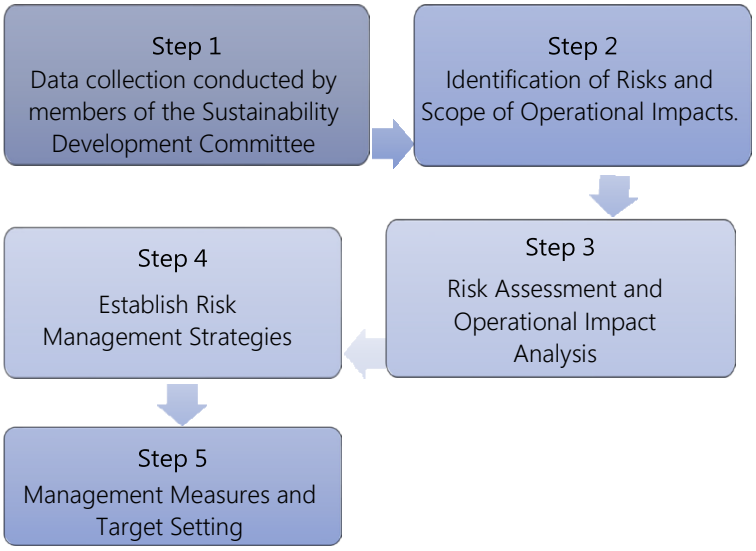
The Company has established a Corporate Sustainability Development Committee (see 1.1.2 Corporate Sustainability Development Committee and 2.1 Management Philosophy and Organizational Structure), as a cross-departmental task force. Dedicated personnel are assigned to carbon reduction initiatives specifically for energy management and climate change issues, responsible for promoting in-plant carbon reduction projects.

Framework	Governance	Strategy	Risk Management	Metrics and Targets
Management Strategies and Policies	The Sustainability Development Committee comprises three subgroups—Environment (E), Social (S), and Governance (G)—each responsible for implementing plans addressing respective issues.	1. Assess the impact of climate change on Shiny Chemical through scenario analysis. 2. Evaluate and plan existing equipment in line with environmental policies on climate change, prioritizing the reduction of environmental impact.	1. Implement environmental management systems and conduct regular internal and external audits to proactively identify pollution prevention measures. 2. Establish regulations related to environmental safety and health, identify new requirements, and regularly collect government regulations and international trends as a basis for compliance and adjustment of management policies.	Set short-, medium-, and long-term greenhouse gas (GHG) emission targets and promote various energy-saving and carbon reduction initiatives and programs.
Implementation Performance	1. Promote corporate policies with the goal of achieving net zero by 2050. 2. Hold working meetings as needed to discuss energy-saving and carbon reduction policies and programs, reporting implementation results to the Chairman.	1. Identify the financial risks of acute extreme weather (heavy rainfall, prolonged drought) and chronic climate trends. 2. Replace aging equipment to reduce carbon emissions. 3. Plan to introduce renewable energy to lower process-related carbon emissions.	1. Assess transition risks and physical risks, and provide risk analyses for possible events (e.g., water resource management and wastewater systems), including financial impact, timeframe (short-, medium-, long-term), and likelihood. 2. Consider opportunity aspects such as improving resource efficiency, adopting alternative energy sources, developing low-carbon products and services, and enhancing adaptability.	1. 2050: Achieve zero waste and net zero emissions. 2. 2030: Develop circular production technologies and carbon reduction technologies, with a 30% in-plant carbon reduction target (baseline year 2022). 3. 2025: Promote energy saving, water and electricity conservation, and waste recycling measures, with a 2% in-plant carbon reduction target (baseline year 2022).

Identification of Climate Change Risks and Opportunities

Risks		Opportunities	
Transition Risks	Policies and Regulations Timely identification of relevant regulatory announcements is required, and compliance necessitates the training and recruitment of professional personnel.	Opportunities	Develop new processes to improve energy efficiency Process optimization and resource recycling/reuse
	Technology Growing global environmental awareness is driving changes in consumer behavior, and the rapid evolution of technological products results in higher product transformation costs.		Low-carbon energy transition Emerging technologies and low-carbon energy entering the market
	GHG Emission Controls Global trends and national policies are moving toward total greenhouse gas emission controls and carbon tax trading, leading to increased costs associated with transitioning to a low-carbon economy.		Circular economy demand Growing market demand for circular economy solutions creates additional business opportunities
Physical Risks	Rising temperatures Rising temperatures year by year are increasing electricity consumption costs.		Enhance energy management efficiencyAchieve energy conservation and control through systematic management approaches
	Water scarcity Water restriction policies may increase process water costs and, in severe cases, disrupt operations and cause losses.		
	Acute heavy rainfall and flooding disasters Disaster incidents may result in losses or operational disruptions, leading not only to higher costs but also to reduced revenues.		

Key Steps in the Climate Change Risk Issue Analysis Process



Analysis of Climate Change Risk Issues

Type	Potential Risk / Opportunity	Timeframe	Impact on the Company	Response Measures
Transition Risks	Policies and Regulations	Short-term	Announcements of relevant regulations must be identified promptly; compliance requires professional talent training and recruitment.	Establish environmental safety and health regulations, identify the latest requirements, and regularly collect government regulations and international trends as a basis for compliance and adjustment of management policies.
Transition Risks	Technology and Innovation	Mid-term	Rising global environmental awareness changes consumer behavior; rapid technological innovation increases product transformation costs.	Continue analyzing and monitoring customer and market trends to meet demand. Maintain appropriate safety stock levels to flexibly respond to production needs.
Transition Risks	GHG Emission Cap and Trade	Long-term	Global trends and national policies are moving toward total GHG emission caps and carbon trading, increasing low-carbon transition costs.	Set internal carbon shadow pricing to account for carbon costs, and plan reduction and energy-saving strategies to cut GHG emissions.
Physical Risks	Rising Temperatures	Short-term	Rising annual temperatures increase electricity costs.	Strengthen equipment maintenance, replace outdated equipment, and improve water and electricity efficiency.
Physical Risks	Water Scarcity	Short-term	Water rationing policies may raise process water costs and even impact operations.	Evaluate available technologies to increase water recycling rates.
Opportunities	R&D for New Processes / Improve Energy Efficiency	Mid-term	Process optimization and reuse/recycling.	Develop and enhance in-plant waste reuse technologies.
Opportunities	Low-Carbon Energy Transition	Mid-term	Transition to new technologies and low-carbon energy.	Introduce innovative energy-saving equipment from the market to improve energy efficiency.
Opportunities	Circular Economy Demand	Short-term	Rising demand for circular economy in the market increases business opportunities.	Improve recycling technologies to enhance market competitiveness.
Opportunities	Enhancing Energy Management Efficiency	Short-term	Adopt systematic management methods to achieve energy conservation control.	Introduce an energy management system to achieve energy-saving goals.

3.1.2 Climate Risk Scenario Analysis

To assess the potential impacts of future climate change on Shiny Chemical, the analysis is conducted under the Sustainable Development Scenario (SDS), in which the Taiwan government is moving toward net zero emissions by 2050, while stakeholders are placing increasing emphasis on climate change.

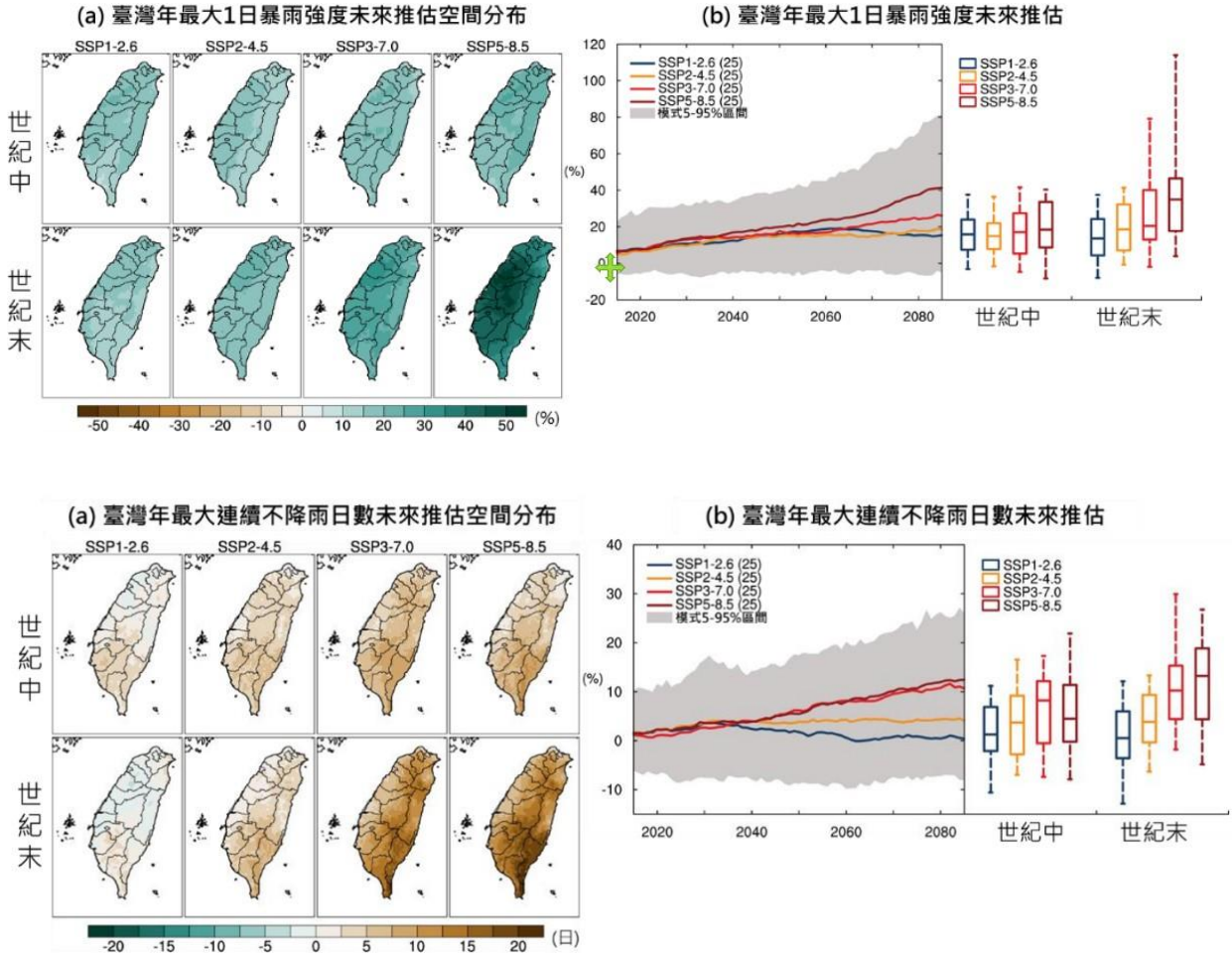
The reference basis includes the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), as well as scientific research from Taiwan's climate change science teams, including the Ministry of Science and Technology's Taiwan Climate Change Projection and Information Platform (TCCIP), Academia Sinica's Research Center for Environmental Changes, and the Central Weather Bureau of the Ministry of Transportation and Communications, among others. Together, these organizations co-authored and released the Key Scientific Findings of the IPCC Sixth Assessment Report and the Updated Climate Change Assessment for Taiwan.

According to Sections 2, 2.1, and 2.2 of the report, there is an observed trend of increasing maximum consecutive dry days across regions. Under the fossil fuel development scenario (SSP5-8.5), simulation results provide projections of future climate scenarios.

Climate Scenario Simulation	
Scenario Description	Low-emission scenario (SSP1-2.6) Medium-emission scenario (SSP2-4.5) High-emission scenario (SSP3-7.0) Very high-emission scenario (SSP5-8.5)
Analysis Results	1. The maximum 1-day annual rainfall intensity in Taiwan shows an increasing trend. 1.1 Under the very high-emission scenario (SSP5-8.5), the average maximum 1-day annual rainfall intensity is projected to increase by approximately 20% in the mid-21st century and 41.3% by the end of the century. 1.2 Under the ideal mitigation scenario (SSP1-2.6), the increases are approximately 15.7% in the mid-21st century and 15.3% by the end of the century. 1.3 Under the medium (SSP2-4.5) and high-emission (SSP3-7.0) scenarios, the projected increases by the end of the century fall between those of the low-emission (SSP1-2.6) and very high-emission (SSP5-8.5) scenarios. 2. The maximum number of consecutive dry days in Taiwan shows an increasing trend across regions. 2.1 Under the low-emission scenario (SSP1-2.6), the reduction is approximately 1.8% in the mid-21st century and 0.4% by the end of the century. 2.2 Under the very high-emission scenario (SSP5-8.5), the increase is approximately 5.5% in the mid-21st century and 12.4% by the end of the century. 2.3 Under the medium (SSP2-4.5) and high-emission (SSP3-7.0) scenarios, the projected increases by the end of the century fall between those of the low-emission (SSP1-2.6) and very high-emission (SSP5-8.5) scenarios.
Risk Assessment	According to global climate models, future rainfall patterns in Taiwan are expected to shift toward more precipitation during wet seasons and less during dry seasons. Based on this trend, drought-related impacts and government-imposed water restriction policies may affect Shiny Chemical's operations. Under restricted water usage, production may need to be reduced or curtailed, resulting in operational disruptions and financial losses.
Action Plans	Allocate annual budgets for water-saving initiatives and water recycling equipment, evaluate new technologies to increase water recycling rates, and incorporate them into annual implementation guidelines and management. 1. Expand water storage capacity to mitigate drought impacts. 2. Implement energy- and water-saving improvement projects to reduce energy consumption and water costs. 3. Monitor water supply conditions at each plant site and arrange water transportation to facilities experiencing shortages.
Financial Risk	During anticipated drought periods, the cost of water procurement and transportation is estimated at approximately NT$5 million.

Source: "Key Scientific Findings of the IPCC Sixth Assessment Report and the Updated Climate Change Assessment for Taiwan"; Taiwan Climate Change Projection and Information Platform (TCCIP)

台灣區域未來推估變化 - 時期比較



3.1.3 Climate-Related Response Strategy Targets and Financial Plans

Response Strategy Targets and Financial Plans

Source of Risk	Description	Mitigation / Response Measures
Energy Management Targets	Future countermeasures and improvement actions	Starting in 2024, Shiny Chemical's subsidiary, E-Shine Advanced Chemicals Co., Ltd., began establishing an energy management platform, scheduled to launch in July 2025. This platform aims to enhance digitalization and transparency of energy-related information within the plant, thereby effectively identifying energy-saving hotspots and improving energy efficiency. A similar platform is planned for implementation at Shiny Chemical in 2025.
Energy Management Targets	ISO 50001 Energy Management System Implementation Plan	Implementation commenced in 2024, adopting the Plan-Do-Check-Action (PDCA) approach to continuously improve plant energy efficiency.
Regulatory Compliance	Measures to comply with laws and government regulations	ISO 14064 was implemented in 2010, followed by ISO 14067 in 2014

Environmental Expenditure and Resource Allocation for the Next Two Years

Item	Amount (NT$ Thousands)	Expected Benefits
Establishment of Energy Management Platform	10,000~20,000	Monitor energy consumption of equipment and areas within the plant, identify energy-saving hotspots, and determine causes of unreasonable power consumption.
Procurement of Biomass Steam	200,000	Reduce plant carbon emissions to achieve carbon reduction targets.

3.2 Energy Management

The company is committed to implementing various environmental protection measures. The energy-saving measures for 2024 are as follows:

1. Improvement of energy-efficient lighting in plant areas.
2. Installation of variable frequency drives (VFDs) on rotating machinery.
3. Upgrades to vacuum and exhaust system equipment

3.2.1 Energy Indicators

2024 Energy Indicators

	Index	Unit	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center
Energy Consumption	Production Output	MTs	85,753	161,635	0	0
	Electricity	kWh	7,689,800	10,291,216	135,120	4,480,797
	Natural Gas	M^3	11,764,706	14,494,996	0	0
	Steam	MTs	0	0	0	0
	Diesel	KL	0	0	0	135.65
	Total	GJ	471,019	583,272	487	20,905

Note 1: The products of Yong-An Plant I and Yong-An Plant II undergo one or more processing procedures during the actual manufacturing process before completion. The production output is calculated based on the quantities processed through each procedure.

3.2.2 Energy Consumption per Unit of Product

The main types of energy used by Shiny Chemical are electricity, natural gas, fuel oil, steam, and diesel. The usage by each plant is shown in the table below:

Major Types of Energy Used in Energy Management in 2024

Plant \ Types	Electricity	Natural Gas	Steam	Diesel
Yong-An Plant I	◎	◎	◎	
Yong-An Plant II	◎	◎	◎	
Qianzhen Plant	◎			
Intercontinental Storage and Transportation center	◎		◎	◎

Energy Consumption per Unit of Product

	Index	Unit	Yong-An Plant I			Yong-An Plant II			Qianzhen Plant			Intercontinental Storage and Transportation center	
			2022	2023	2024	2022	2023	2024	2022	2023	2024	2023	2024
	Production Output	MT	79,679	75,783	85,753	135,282	145,238	161,635	NA			NA	
	Electricity	KLOE	658	644	735	983	973	984	29.16	22.54	12.92	137.54	428.36
		KLOE per Production Output	0.01	0.01	0.01	0.01	0.01	0.01	NA			NA	
		MJ per MT	311.27	320.28	322.90	273.69	252.21	229.26					
Energy Consumption	Fuel Oil	KLOE	0.10	0.00	0.00	0.00	0.00	0.00					
		KLOE per Production Output	0.00	0.00	0.00	0.00	0.00	0.00					
		MJ per MT	0.05	0.00	0.00	0.00	0.00	0.00					
	Natural Gas	KLOE	10,616	10,836	11,765	14,382	14,207	14,495					
		KLOE per Production Output	0.1332	0.1430	0.1372	0.11	0.10	0.09					
		MJ per MT	5,021	5,388	5,170	4,006	3,686	3,379					
	Diesel	KLOE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.8	126.60
		KLOE per Production Output	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
		MJ per MT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Note 1: Qianzhen Plant and the Intercontinental Storage and Transportation Center have no production processes; therefore, fuel oil and natural gas are not used.

3.2.3 Energy Management

2024 Energy Statistics by Plant – Non-Renewable Energy

Types / Plant	Electricity		Natural Gas		Diesel		Total Energy Consumption by Plant
	kkWh	GJ	M^3	GJ	KL	GJ	GJ
Yong-An Plant I	7,690	27,690	11,764,706	443,329	0	0	471,019
Yong-An Plant II	10,291	37,057	14,494,996	546,215	0	0	583,272
Qianzhen Plant	135	487	0	0	0	0	487
Intercontinental Storage and Transportation center	4,481	16,135	0	0	135.65	4,771	20,906
Total	22,597	81,369	26,259,702	989,544	135.65	4,771	1,075,684

Note 1. Conversion factors for various energy consumption (based on the latest Bureau of Energy calorific value table):

(a)Electricity 860 kcal/kWh ;

(b) Natural Gas 9,000 kcal/m^3 ;

(c) Diesel 8,400 kcal/L

Note 2.1kcal=4.187 × 10^{-3}MJ

Note 3. kkWh

Note 4. GJ

Note 5. External energy consumption is still under planning and inventory; data is not yet complete and therefore not disclosed at this stage

Energy Statistics by Plant – Renewable Energy

Due to supplier operational factors, the company ceased using purchased steam in 2022. In 2023, a biomass steam project was planned, which is currently under implementation and is expected to begin supply in the second half of 2025.

In addition, the company's solar photovoltaic power generation system produced a total of 191 GJ in 2024, all of which was sold to Taiwan Power Company.

2024 Energy Intensity by Plant

Unit: GJ/MT

Types / Plant	Electricity	Natural Gas
Yong-An Plant I	0.323	5.170
Yong-An Plant II	0.229	3.379
Average	0.262	4.000

3.2.4 Achievements and Targets

Energy-Saving Improvements

. Annual electricity savings of 348,000 kWh, representing a saving rate of 1.74% at Yong-An Plant I and 2.08% at Yong-An Plant II. The combined performance meets the 1% requirement stipulated by the Energy Management Act.

. Annual electricity savings = 347,758 kWh.

3.3 Greenhouse Gas (GHG) Management

. Climate change and greenhouse gas (GHG) reduction issues have been highly valued by the international community and the government. Since 2004, the company has continuously conducted GHG inventories.

In November 2011, the company established the "GHG Promotion Committee" to drive GHG inventory efforts. To improve inventory accuracy and comply with international standards, the company formally adopted the ISO 14064-1 GHG inventory system, which was verified by the Bureau of Standards, Metrology and Inspection (BSMI) in 2012. This serves as a foundation for advancing energy conservation and carbon reduction in line with green environmental management principles.

· In 2024, the GHG inventory expanded from Scope 1 (direct emissions) and Scope 2 (indirect emissions) to also include Scope 3 (other indirect emissions). Due to process changes and the expansion of carbon footprint assessments for raw materials and products, the baseline year was updated from 2023 to 2024.

· The company, through the ISO 14064-1 GHG inventory system, conducts annual GHG inventories to monitor and reduce emissions, ensuring that environmental management policies are implemented across all depts.

· In response to customer requirements, the company established the "GHG Promotion Committee" in November 2011 to implement GHG inventories. In July 2012, verification under ISO 14064-1:2006 was conducted by BSMI, certifying Yong-An Plant I, Yong-An Plant II, and Qianzhen Plant. Since then, the company has continued conducting its own GHG inventories.

· In 2015, the company officially established the "Corporate Social Responsibility Committee" (renamed the Corporate Sustainability Development Committee), responsible for compiling and reporting sustainability indicators. Since publishing its first CSR report in 2015, the company has issued ten reports up to 2024, covering economic, environmental, and social issues. These reports are compiled and edited under the leadership of the Finance Department. Since 2022, certain indicators have been assured by Crowe Taiwan。

· In November 2021, the company established the "Carbon Neutral Task Force," which was renamed the "ESG Task Force" in August 2022. To achieve the global target of net-zero GHG emissions by 2050, the task force holds meetings periodically to discuss carbon reduction strategies.

3.3.1 Greenhouse Gas (GHG) Management Performance

. The company has set 2024 as the baseline year. In subsequent years, verification will be conducted by a third-party certification body in accordance with ISO 14064-1:2018. The GHG inventory covers all seven greenhouse gases regulated under the United Nations Framework Convention on Climate Change (UNFCCC).

Inventory Scopes:

. Scope 1 (Direct Emissions): Emissions from sources owned or controlled by the company, including stationary fuel combustion, process emissions, mobile combustion, and refrigerant leakage.

. Scope 2 (Indirect Emissions): Emissions from sources related to the company but not directly controlled, primarily purchased electricity.

. Scope 3 (Other Indirect Emissions): Emissions arising from transportation and distribution, raw materials, product use, and the treatment of solid and liquid waste.

2024 Greenhouse Gas Emissions Statistics by Plant

	Index	Unit	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center
Greenhouse Gases	Production Output	MT	85,753.0000	161,653.0000	Note 5	
	Direct Emissions (Scope 1)	MT CO_2e	25,032.6101	30,758.4481	1.0771	436.7385
	Indirect Emissions (Scope 2)		3,644.9652	4,878.0364	66.8844	2,213.5137
	Other Indirect Emissions (Scope 3)		179,167.9552	268,982.2679	41.0199	773.0542
	Total Emissions Equivalent		207,845.53	304,618.75	108.98	3,423.31
Unit Product CO_2 Emissions	Direct Emissions (Scope 1)	MT CO2e/ Production Output	0.2919	0.1903	NA	
	Indirect Emissions (Scope 2)		0.0425	0.0302		
	Other Indirect Emissions (Scope 3)		2.0893	1.6641		
	Total Emissions Equivalent		2.4238	1.8846		

Notes 1 The baseline year for Scope 1 to Scope 3 emissions is 2024.

Notes 2 Emission factors are calculated based on version 6.0.4 of the Greenhouse Gas Emission Factor Management Table.

Notes 3 The company's primary greenhouse gas emissions include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs), all expressed in terms of carbon dioxide equivalent (CO_2e).

Notes 4 Direct emissions: Greenhouse gas emissions directly generated from sources owned or controlled by the organization.

Indirect emissions: Greenhouse gas emissions resulting from purchased energy, i.e., emissions generated by energy providers from the electricity, heat, and steam consumed by the organization.

Other indirect emissions: Emissions arising from downstream transportation and distribution, purchased goods, and the treatment of solid and liquid waste.

Notes 5 Qianzhen Plant and the Intercontinental Storage and Transportation Center are used solely for product storage and distribution.

1. In response to climate change and to promote the Company's sustainable operations, we continue to pursue the procurement of renewable energy and energy-saving equipment, with the aspiration of achieving net-zero carbon emissions by 2050.

2. To ensure effective implementation of greenhouse gas management, the Company has established the *Greenhouse Gas Management Guidelines* for compliance, and formed the *Greenhouse Gas Promotion Committee* to oversee and advance the management of greenhouse gas emissions.

3.3.2 Energy Conservation and Carbon Reduction

Achievements in Energy Conservation and Carbon Reduction

In 2024, the Company continued to improve process energy efficiency and reduce energy consumption. The main initiatives included:

. Optimization of blower horsepower in the process exhaust system.
. Continuation of the replacement of energy-saving lighting equipment throughout the plants.
. Upgrading of vacuum and air compression systems with variable frequency drives to enhance equipment efficiency.
. Replacement of process vacuum system units to further improve overall energy-saving performance.
. Ongoing promotion of a "paperless office," converting written documents into electronic files and digitalizing paper-based tests.

2024 Electricity Savings Rate

Plant	Electricity Saved (kWh)	Annual Savings Rate
Yong-An Plant I	133,768	1.734%
Yong-An Plant II	213,990	2.08%

Energy-Saving Measures in 2024

Plant	Energy-Saving Measure	Energy Saved (kWh)	Annual Savings Rate	Carbon Reduction (MT)
Yong-An Plant I	Replace exhaust blowers with 10HP and 15HP units	4,960	0.06%	2
Yong-An Plant I	Replace plant lighting with LED fixtures	18,443	0.24%	9
Yong-An Plant I	Replace plant pumps	726	0.01%	0.34
Yong-An Plant I	Decommission oil transfer pumps (2 units)	327	0.004%	0.15
Yong-An Plant I	Replace cooling tower fans	73,683	0.96%	35
Yong-An Plant I	Decommission biofilter equipment	35,629	0.46%	17
Yong-An Plant II	Replace plant vacuum units	85,400	0.83%	40
Yong-An Plant II	Replace plant lighting with LED fixtures	27,543	0.27%	13
Yong-An Plant II	Upgrade constant-speed pumps to variable-frequency pumps	8,460	0.08%	4
Yong-An Plant II	Reduce boiler feedwater system by one pump	77,880	0.76%	37
Yong-An Plant II	Replace wastewater system blowers with smaller units	8,092	0.08%	4
Yong-An Plant II	Replace feed pump at Purification Plant IV with a smaller unit	6,615	0.06%	3

3.4 Environmental Protection Strategies and Policies

Shiny Chemical pursues the highest environmental protection principle of "Green Production, Occupational Safety and Environmental Protection, and a Friendly Earth." The Company has established a dedicated Environmental Safety and Health Department (ESH Dept.) as the primary unit responsible for planning, monitoring, and supervising matters related to environmental protection, safety, health, and fire prevention. In addition, each department assigns representatives for occupational safety and health affairs to assist in promoting relevant tasks.

In accordance with the Target Management Implementation Guidelines, each plant is required annually to formulate execution plans and self-inspection programs regarding environmental protection, safety, and health. The ESH Dept. then follows up on deficiencies and improvements to ensure effective implementation.

To fulfill its social responsibility of protecting the Earth, the Company has established its Environmental, Occupational Safety, and Health Policy with the principles of "Compliance with Regulations, Waste and Energy Reduction, Risk Control, and Continuous Improvement." The Company obtained ISO 14001 Environmental Management System certification in 2002, and successfully transitioned to the latest version, ISO 14001:2015, in 2017 (valid until May 18, 2026).

Furthermore, through proactive process improvement, resource management, waste and pollution reduction, environmental monitoring, and emergency response measures, the Company effectively achieves its environmental protection objectives.

3.4.1 Environmental Protection Management

Environmental Monitoring	VOC detection, toxic gas detection, and 24-hour alarm monitoring system across all plants	Waste Pollution Reduction	Independent organic compound recovery towers installed in each plant to reduce waste generation
	Regular testing of wastewater discharged to the industrial wastewater treatment plant		Controlling industrial waste generated during production by implementing proper classification, storage, recycling, and reuse
	Regular testing of fixed pollution source emission pipelines and equipment components		Recycling solvents from the technology industry, converting them into alternative raw materials to achieve waste reuse
	Regular testing of general industrial waste and products	Water Pollution Management	Installation of flow meters to collect and record water consumption data
Air Pollution Control and Energy Conservation & Carbon Reduction	Installation of flash tanks in processes to recover and reuse low-pressure steam		Monitoring water quality and controlling cooling tower discharge volumes
	Installation of economizers on low-efficiency boilers to recover flue gas heat		Monitoring boiler water quality and controlling boiler water discharge
	Directing process exhaust into catalytic incinerators to reduce VOCs and air pollution		Continuous optimization of wastewater treatment plant efficiency to prevent pollutant discharge
	Adoption of seal-less canned pumps to eliminate leakage and environmental pollution risks	Emergency Response	Establishing environmental protection and internal/external emergency response plans
	Continuous process improvements to reduce VOCs and air pollution		Conducting annual internal and external drills and training
	Planning new equipment with the best available technology		Participating in unannounced government inspections as required
Toxic Chemical Monitoring and Management	Establishing management measures for toxic and controlled chemicals to strengthen management and operational safety		Developing various emergency response scenarios within the plants to improve response capabilities in different incidents
	Reporting and real-time monitoring of toxic and controlled chemicals in accordance with transportation management regulations to ensure safety and control		
	Comprehensive hazard prevention and emergency response plans, including transportation-related hazard prevention and response measures, have been established. A rigorous reporting and notification procedure is in place to ensure timely emergency response and management, thereby minimizing the scope of potential impacts.		
	Regular maintenance of emergency response equipment, as well as inspection and servicing of detection and alarm systems, is conducted to ensure that alarm systems and equipment can perform their emergency response functions effectively.		

3.4.2 Occupational Safety and Environmental Protection Supervision and Management

· Implementation of On-Site Audits
Supervisors conduct irregular daily inspections of the plants to ensure workplace safety. Before outsourcing any engineering project, a *Pre-Construction Safety Assessment Form* must be completed to identify major potential hazards and risks. Safety protection costs are included in the project budget, and appropriate control measures are confirmed based on the assessment results. During operations, safety supervisors are assigned to oversee safety, report emergencies, and carry out rescue tasks, ensuring workplace and personnel safety.

· Regular Internal Inspections and Audits
All Depts are supervised to ensure the proper implementation of occupational safety and environmental protection management systems. To comply with international standards, an independent third-party organization is engaged annually to conduct audits, ensuring the effectiveness of the EHS management system. Regular management reviews and evaluations are conducted regarding production quality, occupational safety and health, and environmental protection. Follow-up actions are taken for items requiring improvement, with continuous supervision to ensure corrective measures are properly implemented and preventive mechanisms are established to avoid recurrence.

· Establishment of the Occupational Safety and Health Committee
Quarterly meetings are convened, chaired by the Vice President or Managers, with full participation of department heads and committee members, including labor representatives (accounting for over one-third of the seats). Through the operation of the Occupational Safety and Health Committee, management reviews and evaluations are conducted on occupational safety, health, and environmental protection. Items requiring improvement are tracked and supervised to ensure corrective actions are effectively implemented and preventive mechanisms are established to prevent recurrence of accidents.

· Implementation of Process Safety Management System
This system reduces the likelihood of equipment malfunctions and enhances personnel emergency response training. It prevents disasters or ensures they can be controlled at an early stage, avoiding escalation of incidents. This safeguards the safety and health of both internal and external personnel, contributing to the Company's sustainable operations.

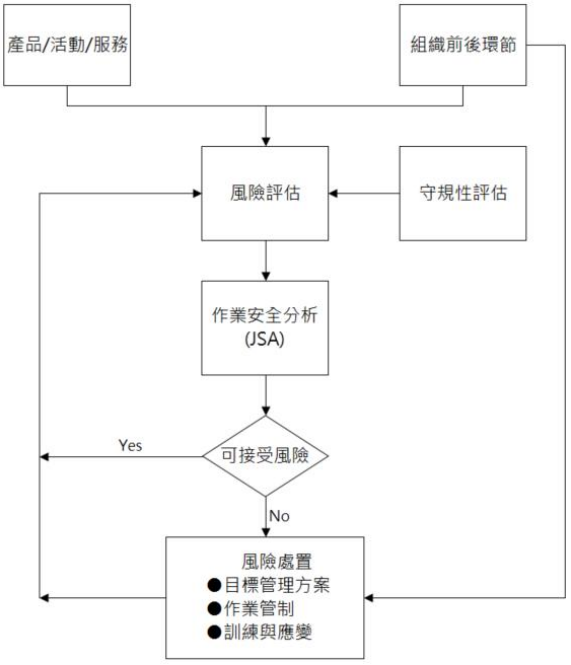
Occupational Safety and Health Committee

Position / Role	
Chairperson	General Manager (1 person)
Vice Chairpersons	Vice General Managers (2 persons)
Department Heads	10 persons
Occupational Safety and Health Representatives	6 persons
Technical Staff Representatives and Plant Nurses	2 persons
Labor Representatives	11 persons
Proportion of Labor Representatives	34%

・Occupational Safety and Environmental Protection Risk Management Operations

The Company adopts risk management as its core principle and has established procedures such as the *Risk Management Operating Guidelines*, *Process Hazard and Operability Analysis Procedures*, and *Job Safety Analysis Management Procedures*. In accordance with updated international management system standards, the Company incorporates considerations across the entire lifecycle, organizational upstream and downstream processes, internal and external communication issues, as well as stakeholder needs and expectations. Based on these factors, the Company conducts job analysis, hazard identification, risk assessment, and control procedures.

To further enhance the efficiency of risk management execution, the Company has implemented a computerized risk management system (*Q-RISK*). This system integrates workflows across all plants, including hazard identification, risk assessment, corrective and preventive actions, regulatory compliance audits, and statutory license management. Through this integrated platform, all employees are able to effectively implement risk control measures. The system is regularly maintained and updated to ensure accident prevention.



. Risk Classification and Response Measures

. Class 1 and Class 2 are categorized as *major risks*. Improvement measures may include "target management programs, operational controls, training, and emergency response." Risk reduction should be considered in the following order:

a. Elimination
b. Substitution
c. Engineering controls
d. Labeling, warnings, or administrative controls
e. Personal protective equipment (PPE)

. Class 3 to Class 5 risks are incorporated into routine management and control. Each unit may establish relevant procedures or work instructions as necessary.

. Class 3 and Class 4 risks shall be reviewed at least once every three years.

. Class 5 risks must be re-evaluated if incidental events or deficiencies occur, including re-assessment of hazard identification and adjustment of the risk classification.

Class	Risk Level	
Class 1	Extremely High Risk	(Unacceptable Risk)
Class 2	High Risk	(Unacceptable Risk)
Class 3	Medium-High Risk	(Temporarily Acceptable Risk)
Class 4	Medium Risk	(Temporarily Acceptable Risk)
Class 5	Low Risk	(Acceptable Risk)

. Contractor Occupational Safety Management for On-Site Operations

To ensure operational safety when contractors perform work or construction activities within the Company's facilities, the *Contractor Safety and Health Management Regulations* have been established. These regulations apply to all companies and personnel engaged in various projects, equipment installation or renovation, maintenance, machinery and vehicle leasing, and other contracted services.

For hazardous operations such as dismantling, hot work, confined space entry, or elevated work, contractors are required to undergo a *Pre-Construction Safety Assessment*. This assessment identifies major potential hazards and risks and confirms the necessary control measures based on the evaluation results. These measures serve as the foundation for planning contractor management programs and implementing hazard communication.

To assist contractors in becoming familiar with the plant environment and the relevant occupational safety, health, and environmental protection regulations, they must complete the Company's designated safety and health training prior to commencing any on-site operations. Only upon passing the training assessment may contractors be permitted to enter the plant for work activities.

2024 Shiny Chemical Contractor Training Statistics

Plant	Training Participants
Yong-An Plant I	1,147
Yong-An Plant II	775
Qianzhen Plant	186
Intercontinental Storage and Transportation center	450
Total	2,558

. Accident Investigation

The Company has established the *Accident Investigation and Handling Procedures* and the *Corrective and Preventive Management Procedures* as guidelines. In the event of an unexpected incident, notification and emergency response are carried out in accordance with internal procedures. The root cause is analyzed to identify the underlying factors and to formulate preventive countermeasures.

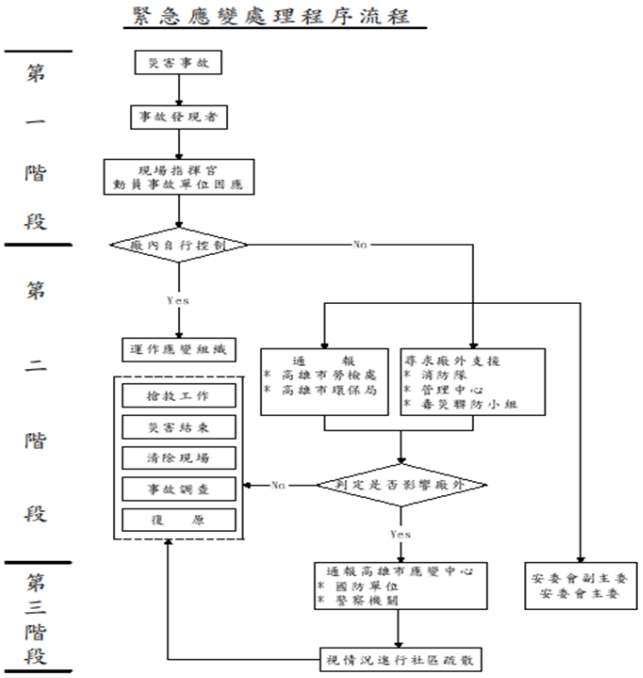
Accident investigations are conducted by a task force formed after each incident, convened by relevant supervisors and comprising technical experts, EHS personnel, managers, and the employees or contractors involved. The investigation covers a detailed description of the incident, emergency response measures, root cause analysis (direct, indirect, fundamental causes, and 5M1E framework), loss statistics, and corrective and preventive actions. The investigation report is submitted for review within the prescribed timeframe. The Environmental, Health and Safety (EHS) Dept. and the Executive Office are responsible for supervising and tracking the implementation of corrective measures. Findings and preventive education are reported to the *Total Quality Management Promotion Committee* and the *Occupational Safety and Health Committee* to prevent recurrence of similar incidents.

. Emergency Response

To address potential disasters, the Company has developed emergency response plans for scenarios such as fire, explosion, toxic substance leakage, large-scale chemical spills, and natural disasters, ensuring effective response and mitigation to safeguard plant safety and minimize impacts.

The Company has established the *Emergency Response Implementation Procedures* and the *Hazardous Operations Emergency Response Plan* to standardize notification processes, handling procedures, response teams, and external support mechanisms in the event of emergencies at each plant. Distinct notification procedures and organizational structures are defined for working hours and non-working hours, enabling swift mobilization of manpower in response to varying levels of disaster severity to achieve effective emergency management.

In 2024, the Company conducted a total of six emergency drills both inside and outside the plants.



. On-Site Emergency Response Operations

When a disaster or accident occurs within the plant, the mobilization of the emergency response organization is determined by the specific circumstances of the incident. If the situation can be handled directly at the scene, first responders will immediately implement emergency measures. However, if the disaster extends to the entire plant or beyond, the mobilization of personnel and the division of responsibilities will be adjusted accordingly. Depending on the severity of the disaster, the mobilization and organizational response are divided into three stages.

Response Stage	Disaster Situation	Emergency Mobilization
Stage 1	The disaster is confined to part of the plant and can be handled by the department itself.	. The on-site commander is responsible for directing the emergency response. . Afterward, the handling situation shall be reported to the chief commander.
Stage 2	The disaster spreads across the plant and requires mobilization of internal personnel and external support to bring it under control.	. The Deputy General Manager, acting as commander, directs the emergency response. . The chief commander mobilizes all internal response teams or requests external assistance.
Stage 3	The disaster extends beyond the plant, posing severe impacts on external areas.	. Emergency command is transferred to local government authorities, while the plant provides support and cooperation. . Police, military, and other agencies assist in the evacuation of the public.

. Off-Site Emergency Response Operations

For the off-site transportation of chemical raw materials and products, the Company uses tank trucks and cargo trucks. To ensure safety during transportation and minimize environmental impacts, the *Contractor Safety and Health Management Regulations* have been established. Before departure, drivers must complete the *Cargo Vehicle Entry and Exit Self-Safety Checklist*, which is then re-verified by the Company to ensure safety.

Additionally, transportation drivers are provided with regular safety training to ensure that in the event of an incident during transportation, they are familiar with emergency reporting procedures, response measures, and the mobilization of response teams. To provide clear protocols for emergency actions, the Company has formulated the *Off-Site Vehicle Transportation Accident Emergency Response Procedures* and the *Hazardous Materials Transportation and Emergency Response Plan*, which stipulate preventive measures and emergency steps for off-site transport. Furthermore, the Company has jointly established regional emergency response alliances in northern, central, and southern Taiwan with transportation companies and industry peers, enabling mutual support of equipment and manpower in case of hazards, thereby reducing safety and environmental impacts.

. Business Continuity Plan

To ensure uninterrupted supply to customers and avoid operational disruptions in the event of disasters, the Company has established a Business Continuity Management System (BCMS) in accordance with the international standard *BS 25999*. The *Business Continuity Management Operating Procedures* have been formulated as guidelines.

Each department conducts environmental analysis to identify potential events that may disrupt operations, such as equipment failures, power outages, and fires. Risks are assessed in terms of likelihood and impact, and prioritized accordingly. Based on cost-benefit considerations, the necessary disaster recovery mechanisms are pre-deployed, including the establishment of emergency response procedures, backup solutions, and recovery processes, to uphold the Company's commitment to uninterrupted customer service.

The Company has developed a total of 11 business continuity plans, which are reviewed and tested annually through tabletop exercises to ensure that employees are well-practiced in relevant procedures and capable of fulfilling the commitment to uninterrupted supply and service.

3.5 Air Pollution Control

During the production process, Shiny Chemical takes measures to prevent potential pollution, excessive energy consumption, and hazards. These include procuring non-toxic and low-toxicity raw materials, substituting natural gas for heavy oil to reduce carbon emissions, installing solar power generation facilities as alternative energy sources, and implementing multiple water- and energy-saving initiatives.

Through the ESG Committee, various energy-saving and carbon-reduction programs are planned, with the goal of achieving a 30% reduction in plant emissions by 2030 and net-zero emissions by 2050

In addition, the Company is actively implementing the ISO 14064-1:2018 Greenhouse Gas Management System to mitigate the environmental impact of operations. Through practical actions in environmental sustainability, we aim to enhance our corporate environmental image, exert positive influence, and promote sustainable development within the industry.

3.5.1 Air Pollution Control Measures

. Air Pollution Prevention and Control
(1) Introduce CTO (Catalytic Thermal Oxidizer) in process exhaust systems to reduce VOCs.
(2) Adopt sealless canned pumps to eliminate environmental pollution caused by leakage.
(3) Continuously improve processes to reduce VOCs and other air pollutants.
(4) To minimize environmental pollution, all newly constructed equipment is designed and planned using the best available technology (BAT).

. To further reduce pollution, the Company has heavily invested in new air pollution control equipment. Specifically, VOCs control facilities have been upgraded by replacing biofilters with CTO (Catalytic Thermal Oxidizers). This replacement has effectively reduced VOC emissions, not only lowering environmental pollution but also reducing air pollution fees associated with VOC emissions.

Air Pollutant Emissions Statistics (Unit: Metric Tons)

Index	2023					2024				
	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center	Total	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center	Total
Volatile Organic Compounds (VOCs)	41.24	10.07	5.06	2.35	58.72	60.45	9.92	3.44	5.90	79.71
Nitrogen Oxides (NOx)	17.13	23.66	0.00	0.14	40.93	21.34	25.98	0.00	0.37	47.69
Total Suspended Particulates (TSP)	0.27	0.63	0.00	0.0001	0.9001	0.37	0.70	0.00	0.0027	1.0727
Sulfur Oxides (SOx)	0.00	0.00	0.00	0.0001	0.0001	0.00	0.00	0.00	0.0010	0.0010

Note 1: Based on 2023–2024 emissions statistics.

3.5.2 Air Pollutant Emissions in Compliance with Environmental Regulations

. Each year, the Company commissions a government-certified testing organization to conduct inspections on fixed emission sources within the plant.
. The calculation of air pollutants is based on the "Fee Collection Regulations for Air Pollution Control" announced by the Environmental Protection Administration (EPA).
. To continuously reduce both the types and quantities of ozone-depleting substances (ODS), the Company has been replacing and switching to new eco-friendly refrigerants. Only a small amount of R22 remains in use, which is being gradually phased out to minimize ODS leakage, thereby contributing to environmental protection.

2024 Air Pollutant Emissions Statistics

	Index	Unit	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center
Air	Sulfur Oxides (SOx)	Kg	0.00	0.00	0.00	2.70
	Nitrogen Oxides (NOx)		21,339.14	25,982.53	0.00	368.92
	Total Suspended Particulates (TSP)		369.59	696.44	0.00	1.04
	Volatile Organic Compounds (VOCs)		60,445.31	9,917.15	3,443.75	5,904.30

Records of Air Pollution Violations and Corresponding Improvement Measures

Regulation Violated	Number of Cases	Violation Details	Penalty Amount (NT$)	Response and Improvement Measures
Air Pollution Control Act	9 Cases	Failure to effectively collect exhaust gases	150,000	Optimize the operating parameters of pollution control equipment to enhance treatment efficiency and reduce pollutant emissions.
		Failure to effectively collect exhaust gases	150,000	
		Failure to maintain proper operation of air pollution control facilities	450,000	
		Failure to maintain proper operation of air pollution control facilities	450,000	
		Internal floating roof leakage exceeding national standards	150,000	Improve processes to reduce the likelihood of equipment component leakage, and enhance inspection effectiveness to identify leakage sources at an early stage.
		Equipment component leakage exceeding national standards	300,000	
		Equipment component leakage exceeding national standards	150,000	
		Equipment component leakage exceeding national standards	150,000	
		Equipment component leakage exceeding national standards	150,000	

3.5.3 Supplier Air Pollution Management

The Company requires that transportation suppliers not only be officially registered and approved by the government, with drivers holding valid professional licenses, but also that vehicles comply with the Environmental Protection Administration's (EPA) air pollution control regulations. Key assessment criteria include whether vehicles have been properly phased out and replaced, and whether drivers have received sufficient training.

During transportation, the strictest safety regulations must be followed, and the safest transportation routes and methods must be selected. Before entering the plant, transport drivers are required to carry a Safety Data Sheet (SDS), a valid hazardous materials transportation certificate, and a road transport permit for inspection. The Environmental Safety and Health Department also provides occupational safety training for drivers, who must pass an evaluation before being permitted to enter the plant for loading. Prior to and after loading, both drivers and on-site personnel conduct additional checks on safety and cleanliness.

In addition, relevant business departments may conduct irregular inspections of transportation suppliers as needed, supervise them in accordance with contract requirements, and continuously track the handling of any abnormal incidents.

3.6 Supplier Air Pollution Management

The types of waste generated by the Company's various plants differ depending on their operational attributes. These wastes include spent solvents, organic sludge, waste oil mixtures, waste resins, and general waste generated from business activities. All of these are classified as general industrial waste. The Company does not transport, import, export, treat, or generate hazardous waste.

Waste is categorized and stored according to its composition and characteristics, and subsequently collected and treated by contractors approved by the Environmental Protection Administration (EPA). The final method of disposal is incineration. To prevent environmental pollution during treatment, the Company commissions third-party accredited institutions to conduct annual environmental monitoring, with all results meeting national standards. Furthermore, the Company continues to quantify waste generation and collect statistical data (see the table "2024 Waste Generation Statistics" below) to assess the effectiveness of its waste management practices.

No significant leakage incidents occurred during the reporting period. The key waste management measures are summarized as follows:

. Independent organic compound recovery towers are installed in all production processes to reduce the generation of waste solvents.

. Production waste is carefully controlled, properly categorized, and stored. Recyclable waste is processed and reused.

. Waste solvents generated by the technology industry are continuously recycled and processed, serving as substitute raw materials for certain production processes to achieve the goal of waste reuse.

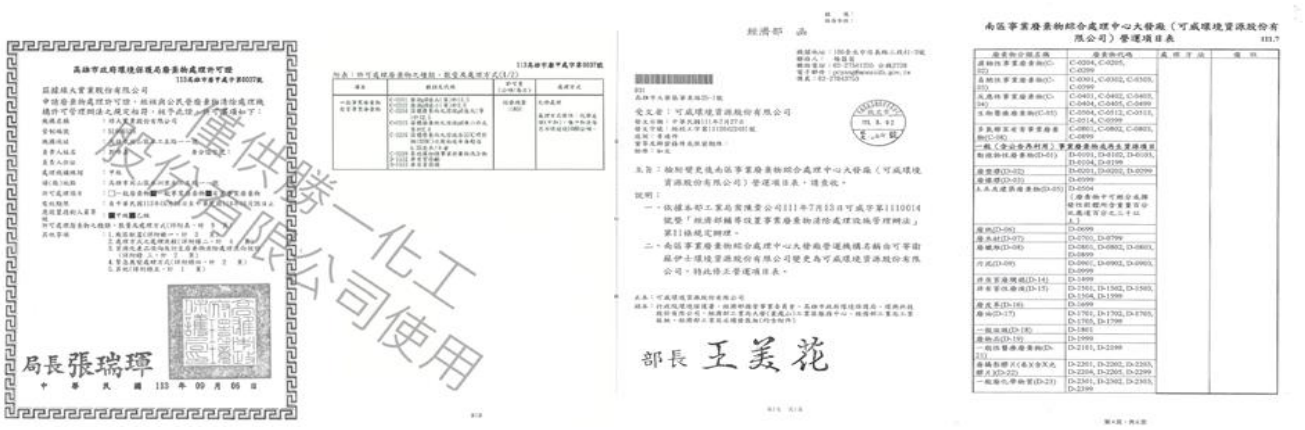
. Employees are encouraged to practice waste sorting and recycling to foster good habits.

2024 Waste Generation Statistics

	Index	Unit	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center
Chinese	Waste Solvent	MT	496.76	62.34	0.00	58.03
	Organic Sludge	MT	4.84	4.40	0.00	0.00
	Waste Oil Mixture	MT	0.00	0.00	0.00	0.00
	Waste Resin	MT	0.00	0.00	0.00	0.00
	General Waste	MT	51.47	15.46	2.40	12.56

. Regular Removal and Treatment by Qualified Contractors with Legal Reporting:
Waste removal and treatment are entrusted to Mountain Green Corporation and Cowin Environmental Resources Limited.

Qualified Waste Removal Contractor Certificate and Service Contract



3.7 Water Resource Management

The Company is located in the Yong-An Industrial Park, Kaohsiung. As of 2024, the statistical scope covers two production plants (Yong-An Plant I and Yong-An Plant II). These sites are not located in areas under water stress. Water is supplied by the Taiwan Water Corporation. The Company has established relevant internal standards, with internal quality controls in place to ensure compliance with regulatory requirements. Wastewater undergoes secondary treatment within the plants before being discharged into the Industrial Park's wastewater treatment facility.

Regular monitoring is conducted to ensure water quality meets the influent limits for the industrial wastewater treatment plant (BOD 400 mg/L, COD 600 mg/L). After further treatment by the wastewater treatment plant, effluent is discharged into water bodies in compliance with regulatory standards (BOD 30 mg/L, COD 100 mg/L). As such, the Company's operations do not pose an impact on local water resources.

The total annual water withdrawal amounted to **254.69 million liters**, with an average water intensity of **1.03**. The production sites continue to implement water-saving measures to achieve sustainable water resource management.

2024 Water Intensity

Item	Yong-An Plant I(Total)	Yong-An Plant II(Total)	Combined
Water Consumption (ML)	156.11	98.58	254.69
Production Volume (MT)	85,753.00	161,635.00	247,388.00
Water Intensity	1.82	0.61	1.03

Note: Water Intensity = Water Consumption (MT) / Production Volume (MT)

Water Resource Utilization in the Past Three Years

Unit: Million Liters

	2022				2023					2024				
Item	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Total	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center	Total	Yong-An Plant I	Yong-An Plant II	Qianzhen Plant	Intercontinental Storage and Transportation center	Total
Tap Water Consumption	215.46	157.81	1.78	375.04	213.00	146.57	13.32	10.03	382.92	236.71	140.59	0.89	39.65	417.84
Recycled Water Consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transferred Water Volume	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Water Consumption	136.96	115.21	1.78	253.95	135.82	108.85	13.32	10.03	268.02	156.11	98.58	0.89	39.65	295.23
Wastewater Discharge Volume	78.50	42.60	0.00	121.10	77.18	37.72	0.00	0.00	114.90	80.60	42.01	0.00	0.00	122.61

Note 1. Tap Water Consumption: Measured and recorded by the Taiwan Water Corporation.

Note 2. Water Sources: Supplied by municipal government water services or other public/private water providers. Note 3. Transferred Water Volume: During drought periods, water is transferred from the Qianzhen Plant to Yong-An Plant I and Yong-An Plant II for use.

Note 4. The Qianzhen Plant and the Intercontinental Storage and Transportation Center are storage and distribution facilities; they do not consume process water and therefore generate no industrial wastewater discharge.

Wastewater Discharge Volumes and Destinations in the Past Two Years

Wastewater Discharge Volume (Million Liters/Year)			Discharge Destination	Treatment Method
Plant	2023	2024		
Yong-An Plant I	77.18	80.60	Yong-An Industrial Park Wastewater Treatment Plant	Treated in accordance with Industrial Park discharge standards, and finally discharged into the Agongdian Creek after treatment at the wastewater treatment plant.
Yong-An Plant II	37.72	42.01		

Note: All effluents meet discharge standards.

No Violations of Water Pollution Discharge Environmental Regulations in the Past Three Years

Target Item	2022	2023	2024
Number of Violations of Environmental Regulation	0	0	0

4 Happy Workplace

4.1 Diversity and Inclusion

4.1.1 Respect for Human Rights

Becoming a happy workplace is Shiny Chemical's aspiration and goal. The Company firmly believes that "people" are the foundation of sustainable business development and also its most valuable asset. Guided by this philosophy and human resource development strategy, the Company strictly complies with domestic and international labor laws and human rights standards in all aspects, including recruitment, compensation and benefits, training, and retirement systems.

We respect internationally recognized fundamental human rights, including freedom of association, the right to collective bargaining, care for disadvantaged groups, prohibition of child labor, elimination of all forms of forced labor, and elimination of discrimination in employment and occupation. Various management policies have been established to provide superior protection of employee rights and benefits. We are committed to offering employees comprehensive and diverse work-life balance measures to foster a supportive, safe, and harmonious workplace environment.

Equal Employment (Non-Discrimination):
In matters of recruitment, training, promotion, compensation, rewards, benefits, job assignments, disciplinary actions, termination of employment, or retirement, the Company shall not engage in unequal treatment or discrimination on the basis of race, color, age, gender, sexual orientation, ethnicity or nationality, physical condition, disability, pregnancy, religion, political stance, marital status, or any other protected category.

Number of Full-Time Non-Managerial Employees and Average Annual Salary in the Past Three Years

Item / Year	2022	2023	2024
Average Number of Full-Time Employees	417	438	447
Average Annual Salary of Full-Time Employees (NT$ Thousand)	1,071	1,014	1,063
Median Annual Salary (NT$ Thousand)	924	870	946
Growth Rate of Median Annual Salary	-1%	-6%	9%

Number of Non-Employee Workers in the Past Three Years

Reporting Period (Most Recent Years)	2022		2023		2024	
Category / Gender	Male	Female	Male	Female	Male	Female
Contractors	4	5	4	5	4	5
Subtotal	4	5	4	5	4	5
Total	9		9		9	

4.2 Talent Attraction and Retention

Equal Employment (Non-Discrimination): In matters of recruitment, training, promotion, compensation, rewards, benefits, work assignments, disciplinary actions, termination, or retirement, the Company shall not engage in unequal treatment or discrimination on the basis of race, color, age, gender, sexual orientation, ethnicity or nationality, physical condition, disability, pregnancy, religion, political affiliation, marital status, or any other protected characteristics.

4.2.1 Employment of Staff

- The Company employs 454 full-time employees, including 373 males (82.16%) and 81 females (17.84%), accounting for 98% of the total workforce. Due to the characteristics of the chemical industry, the proportion of male employees is higher than that of female employees.
- The Company employs 9 non-full-time workers, including outsourced cleaning, security, and catering personnel, of whom 4 are male and 5 are female, accounting for 2% of the total workforce.
- All employees are locally hired in Taiwan, with no foreign employees. Due to the industry's characteristics and on-site chemical process operations, the male-to-female ratio is approximately 4.6:1, with a higher proportion of male employees.
- The Company has 19 senior executives and 33 managerial personnel. The male-to-female ratio among managers at all levels is approximately 13:1, and all senior management positions are locally filled in Taiwan.
- All workers in the Company's workplaces are covered under the Occupational Safety and Health Management System. This includes employees, non-full-time workers, and contractors, all of whom fall within the Company's scope of protection.
- To promote employment opportunities for people with disabilities, the Company provides priority hiring for disadvantaged groups. Currently, 4 employees with disabilities have been hired.
- Employees under 30 years old account for 17.18% of the workforce, those aged 30 to under 50 account for 63.87%, and those aged 51 and above account for 18.95%. In recent years, the Company has maintained a stable workforce structure, continuously recruiting and retaining outstanding talent while implementing talent development programs.

Gender Structure of Employees in the Past Three Years

Item	2022			2023			2024		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Full-time Employees	364	77	441	377	79	456	373	81	454
Non-full-time Employees	4	5	9	4	5	9	4	5	9
Total	368	82	450	381	84	465	377	86	463
%	82	18	100	82	18	100	81	19	100

Total Number of Employees in the Past Three Years

Category / Year	2022				2023				2024			
Gender (Note 4)	Male	Female	* Others	Total	Male	Female	* Others	Total	Male	Female	* Others	Total
Full-time Employees (A)	364	77		441	377	79		456	373	81		454
Non-full-time Employees (B)	4	5	0	9	4	5	0	9	4	5	0	9
Total (C=A+B)	368	82	0	450	381	84	0	465	377	86	0	463
Proportion of Full-time Employees (A/C)	98%				98%				98%			

Note 1. Full-time employees: All employees other than non-full-time personnel.

Note 2. Non-full-time employees: Consultants, fixed-term contract employees, interns, or directors.

Note 3. Full-time personnel: All employees are full-time except directors.

Note 4. Others: Gender self-identified by employees.

Age and Turnover Distribution of Full-time Employees

Year	Age Group / Gender	Full-time Employee Age Distribution				Full-time Employee Turnover Distribution				External Industry Average Turnover Rate	Employee Distribution (Most Recent Year)			
		Male		Female		Male		Female			Male		Female	
		Number of Employees	Percentage of Total Employees	Number of Employees	Percentage of Total Employees	Number of Employees	Percentage of Total Employees	Number of Employees	Percentage of Total Employees		Number of Employees	Percentage of Total Employees	Number of Employees	Percentage of Total Employees
2022	Under 30	89	20.18%	12	2.72%	7	1.59%	0	0.00%	2.29%	21	4.76%	2	0.45%
	31–50	210	47.62%	47	10.66%	11	2.49%	2	0.45%		33	7.48%	7	1.59%
	Over 51	65	14.74%	18	4.08%	8	1.81%	1	0.23%		0	0.00%	0	0.00%
	Subtotal	364	82.54%	77	17.46%	26	5.89%	3	0.68%		54	12.24%	9	2.04%
2023	Under 30	84	18.42%	13	2.85%	7	1.54%	0	0.00%	2.28%	13	2.85%	2	0.44%
	31–50	229	50.22%	47	10.31%	22	4.82%	4	0.88%		33	7.24%	5	1.10%
	Over 51	64	14.04%	19	4.17%	7	1.54%	1	0.22%		2	0.44%	0	0.00%
	Subtotal	377	82.68%	79	17.32%	36	7.89%	5	1.10%		48	10.53%	7	1.54%
2024	Under 30	65	14.32%	13	2.86%	7	1.54%	1	0.22%	2.26%	11	2.42%	3	0.66%
	31–50	243	53.52%	47	10.35%	18	3.96%	1	0.22%		10	2.20%	3	0.66%
	Over 51	65	14.32%	21	4.63%	6	1.32%	1	0.22%		3	0.66%	0	0.00%
	Subtotal	373	82.16%	81	17.84%	31	6.83%	3	0.66%		24	5.29%	6	1.32%

Source of Industry Data: Directorate-General of Budget, Accounting and Statistics (DGBAS) (Time Series Data Query – Attrition Rate)
Turnover Calculation Formula: Number of male and female employees who resigned ÷ Total number of full-time employees in the company
New Hire Calculation Formula: Number of newly hired male and female employees ÷ Total number of full-time employees in the company

Gender Ratio Distribution by Position Level

Category	Male		Female		Total	
Position Category	Number of Employees	Percentage	Number of Employees	Percentage	Number of Employees	Percentage
Senior Executives	19	100%	0	0%	19	4%
Supervisors	29	88%	4	12%	33	7%
Professionals	82	68%	39	32%	121	27%
General Staff	243	86%	38	14%	281	62%
Total	373	82%	81	18%	454	100%

Note: There are a total of 19 senior executives, all of whom are domestic residents, accounting for 100%. For further details, please refer to the Company's 2024 Shareholders' Meeting Annual Report.

4.2.2 Labor-Management Relations

The Company maintains smooth communication channels with employees and, in accordance with the law, holds regular labor-management meetings on a quarterly basis, covering 100% of employees.

The election of employee representatives excludes only senior managers, HR officers, and their supervisors; all other employees have both the right to vote and the right to be elected. Extraordinary meetings may be convened when necessary.

Discussions focus on topics such as promoting labor-management cooperation, improving relations, enhancing working conditions, and planning employee welfare. These meetings ensure smooth communication, timely responses to employee concerns, provide updates on company operations, and invite employees to participate in discussions regarding labor conditions and welfare, thereby fostering a mutually beneficial and harmonious relationship.

In addition to labor-management meetings, the Company respects employees' rights to form labor unions, though none have been initiated to date.

Shiny Chemical has established an Employee Welfare Committee operating independently in compliance with regulations, allocating 0.07% of monthly revenue as its activity fund.

Benefits include employee travel, birthday, childbirth, wedding and funeral subsidies, scholarships for employees' children, and holiday bonuses, recognizing employees' dedication.

Occasional travel activities are also organized to help employees relieve work stress, promote health, and enhance interaction, thereby strengthening cohesion.

In the event of significant operational changes affecting employee rights and labor conditions, Shiny Chemical complies with Article 16 of the Labor Standards Act by observing the minimum notice period for termination of contracts. During the reporting period, there were zero incidents of legal violations.

4.2.3 Employee Compensation and Benefits

Compensation Policy

The Company emphasizes people-oriented management and profit sharing, offering a competitive salary structure to safeguard employees' quality of life and to attract and retain outstanding talent. In addition, a fixed proportion of monthly sales revenue and by-product revenue is allocated as employee welfare funds, used for benefits such as holiday bonuses, birthday gifts, and domestic and overseas travel subsidies.

The remuneration of directors, independent directors, and managers is evaluated for reasonableness by the Remuneration Committee.

For details regarding the compensation policies and information of the highest governance body and senior management, please refer to the appendices and notes of the "Corporate Governance Report" in the Company's 2024 Annual Shareholders' Meeting Report.

Employee Compensation and Gender Equality Analysis

Item	2023	2024	Growth Rate %
Average Number of Employees	438	447	2.2
Average Salary (NT$ thousand)	1,014	1,063	4.6
Median Annual Salary (NT$ thousand)	870	946	8.2

Note 1 The number of employees in this table excludes managerial personnel (Chairman, President, Vice President, and Chief Financial Officer).

Note 2 The definition of "managerial personnel" follows the scope stipulated in the official letter No. 920001301 issued by the competent authority on March 27, 2003.

Note 3. The ratio of the highest compensation to the median annual salary is approximately 7:1.

Gender Pay Ratio

The Company's entry-level salaries exceed the statutory minimum wage, and we are committed to gender equality and equal pay for equal work.

2024 Ratio of New Employee Starting Salaries to External Benchmark

Gender	Ratio
Male	1.68
Female	1.55

Ratio of Male to Female Base Salary and Total Compensation

Shiny Chemical values gender equality and equal pay for equal work. Compensation standards are not differentiated by gender but are determined based on business performance, industry salary benchmarks, performance evaluations, and future operational requirements of the Company.

Position Category	Male		Female	
	2023	2024	2023	2024
Senior Executives	1.00	1.00	1.29	-
Supervisors	1.00	1.00	0.72	0.91
Professionals	1.00	1.00	1.09	1.04
General Staff	1.00	1.00	1.00	0.97

Note: This table is calculated based on average compensation.

4.2.4 Performance Management

Shiny Chemical conducts annual performance evaluations for all employees, regardless of gender or job level, as a reference for appointments, promotions, and training and counseling.

The results of performance evaluations serve as an important basis for employee promotions, salary adjustments, and other personnel decisions. These evaluations help both managers and employees in planning career development, addressing areas that need improvement, and providing incentives for employees who exceed performance standards.

Employees with outstanding performance are offered opportunities for promotion and salary increases, while year-end bonuses are determined based on the company's annual operating performance and the results of individual evaluations

4.2.5 Employee Welfare System

The company has established parking facilities. With 274 employees

at the plant, a total of 278 parking spaces are provided, achieving 100% coverage.

- Leave System

The company offers a pre-granted annual leave system that is more favorable than the Labor Standards Act, allowing employees to flexibly balance work and family life.

- Insurance System

The company values employee safety and health by providing group insurance programs. In addition to statutory labor insurance, the company also provides group life insurance, with all premiums fully covered by the company.

- Scholarships for Employees and Their Children

The company encourages lifelong learning by offering scholarships for both employees and their children.

- Retirement System

In compliance with the Labor Standards Act and the Labor Pension Act, the company has established a retirement system. Retirement funds are contributed monthly to ensure full provision as required by law, providing stability for employees after retirement. Employees who meet statutory retirement conditions are granted retirement benefits, and commemorative gifts are provided in recognition of their contributions. In addition, retired employees may be rehired as consultants based on their expertise. In 2024, three consultants were engaged to participate in projects and advisory services, ensuring the effective transfer of valuable workplace experience.

- Dining Benefits

To support employee well-being, the company provides a free staff cafeteria. Employees can enjoy a buffet with two main dishes, four side dishes, desserts, soups, and fresh fruit, with menus updated daily to ensure variety, nutrition, and taste. To maintain hygiene and safety, regular disinfection of dining facilities is conducted, thereby enhancing the quality of the dining environment and ensuring peace of mind for employees.

- Other Employee Benefits

Benefits	Description
Wedding Gift Cash Allowance	A congratulatory cash gift for employees upon marriage.
Holiday and Birthday Allowances	Cash gifts provided during three major traditional festivals and on employees' birthdays.
Bereavement Condolence Payment	A condolence allowance provided in the event of the death of the employee, their child, spouse, or parent.
Injury and Hospitalization Condolence Payment	A condolence allowance for hospitalization due to illness or injury of the employee or their spouse.
Employee Travel Subsidy	Travel subsidies extended to cover employees' family members.

- Encouraging Employee Childbirth

· Parental Leave

The increasingly serious low birth rate will result in insufficient future productivity, talent shortages, and weakened competitiveness. The company adopts a supportive and friendly attitude toward childbirth, ensuring a workplace free from discrimination, while providing facilities such as nursing rooms and designated parking spaces for pregnant employees. To help employees balance work and family responsibilities, and in accordance with the *Act of Gender Equality in Employment*, the company has established parental leave without pay regulations within its *Work Rules*. Eligible employees may apply in accordance with the relevant provisions.

In 2024, five employees applied for parental leave without pay, and three employees returned to work during the year, achieving a reinstatement rate of 100%. The statistics for parental leave applications and reinstatement at Shiny Chemical in 2024 are shown in the table below:

Item	Female	Male	Total
Eligible Employees for Parental Leave	8	44	52
Actual Applicants for Parental Leave	2	3	5
Employees Due for Reinstatement (A)	1	2	3
Employees Reinstated (B)	1	2	3
Reinstatement Rate (B/A)	0%	100%	100%
Retention Rate	0%	100%	100%

Note: The retention rate refers to the percentage of employees who, after returning from parental leave without pay, remain employed for more than one year.

· Incentive Program

To encourage employees to have children and to ease the financial burden of child-rearing, since July 1, 2021, the company has provided a childbirth incentive of NT$10,000 per child and a childcare allowance of NT$2,000 per month (until the child reaches the age of two). The related subsidies disbursed by Shiny Chemical in 2024 are shown in the table below:

Item	Total Amount Disbursed During the Year (NT$)
Childbirth Incentive (NT$10,000 per child)	160,000
Childcare Allowance (NT$2,000 per month)	618,000
Total	778,000

4.2.6 Employee Health and Care

To expand employee participation in matters related to safety, environment, health, and employee welfare, the company has established the Labor-Management Meeting (with labor representatives accounting for 1/2), the Employee Welfare Committee Meeting (with labor representatives accounting for 3/4), and the Occupational Safety and Health Committee (with labor representatives accounting for 1/3). These committees regularly review employee welfare, safety, and health issues and propose improvement measures to management.

Classification Requirements (Article 21, Labor Health Protection Regulations)

To safeguard employee health beyond legal requirements, the company provides free annual health examinations for all employees. The scope of these examinations exceeds statutory items, and a full-time nurse is appointed to follow up on and manage the results.

To ensure the safety and health of middle-aged and senior employees, health risk assessments were conducted for 141 employees aged 45 and above. Among them, 22 employees with abnormal results were provided with consultations with occupational physicians, receiving health guidance and job suitability assessments. Continuous follow-ups were conducted to monitor improvements in their health risk conditions.

Health Care Hours Statistics for the Past Two Years

Health Care	2023	2024	Growth Compared to Previous Year
Hours	257	442	172%

A physician from the Department of Occupational Medicine at Kaohsiung Chang Gung Memorial Hospital serves as the company's contracted health service physician, visiting the company every two months to provide on-site health services, including health guidance and recommendations for employees, as well as unscheduled workplace inspections.

. In response to new regulations on the prevention of emerging occupational diseases, the company provides relevant measures such as the prevention of musculoskeletal disorders caused by repetitive tasks, prevention of diseases triggered by abnormal workloads, maternal health protection, and prevention of unlawful infringement while performing duties.

. Blood pressure monitors and weighing scales are provided for employees and plant personnel to regularly monitor their physical condition, thereby promoting both physical and mental health.

· All contractors are required, under engineering contract agreements, to ensure that all employed workers are covered by labor insurance, National Health Insurance, and accident insurance during their employment. Prior to commencing work, they must also receive hazard communication and occupational safety and health training from Shiny Chemical.

. Annual physical and mental health seminars and activities are organized, along with the provision of health and wellness information on an irregular basis.

Health Examination Classification and Management Measures

Content	Response
Number of personnel under abnormal management	33 persons
Completion rate	100%
Number of personnel requiring follow-up	0 persons
Related extended measures	Health education and physician consultation arranged for some personnel
Any occupational injury incidents	None

· For employees working in special hazardous operations, special health examinations are conducted in accordance with regulations (including exposure to formaldehyde, manganese, mercury, dichromates, and their salts), along with graded health management.

Statistics of Special Health Examination Results for Employees in Hazardous Operations in the Past Two Years

Item	2023					2024				
	No. of Exams	Health Management Level				No. of Exams	Health Management Level			
		Lv.1	Lv.2	Lv.3	Lv.4		Lv.1	Lv.2	Lv.3	Lv.4
Chromic Acid and Its Salts	-	-	-	-	-	-	-	-	-	-
Mercury and Its Inorganic Compounds	19	17	2	-	-	23	22	1	-	-
Manganese and Its Compounds	19	19	-	-	-	23	23	-	-	-
Formaldehyde	22	13	9	-	-	19	13	6	-	-
Total	60	49	11	-	-	65	58	7	-	-

Lv. 1 Management: Examination results are determined to be normal.

Lv 2 Management: Examination results are determined to be abnormal but unrelated to work.

Level 3 Management: Examination results are determined to be abnormal, but work-relatedness cannot be confirmed; further evaluation by an occupational medicine specialist is required.

Level 4 Management: Examination results are determined to be abnormal and work-related.

4.3 Talent Development

4.3.1 Employee Training and Development

Shiny Chemical invests substantial resources annually to design training programs ranging from professional training, and management development, to personal interest learning, thereby providing employees with diversified educational opportunities.The company provides a systematic growth and development roadmap, enabling employees to build essential job skills and develop capabilities required for future advancement and promotion.In 2024, the total training hours for all employees amounted to 9,325 hours, with an average of 21 hours per employee, and total training expenses of NT$1,850,514.

On the first day of employment, all employees are required to sign a "Commitment Letter" and receive an orientation to ensure they understand the company's code of conduct.Additionally, the company has established the "Integrity Management Operating Guidelines." Both the "Commitment Letter" and the guidelines set clear standards on employee discipline, ethical conduct, anti-corruption, conflict of interest, gifts, and business hospitality.As of December 31, 2024, all employees had signed the commitment letter, ensuring full compliance, with a communication rate of **100%**.

2024 Employee Training Hours by Job Category

Job Category	Male		Female		Total	
	No.	Avg. Hours	No.	Total	No.	Total
Senior Executives	19	16	-	-	19	16
Supervisors	29	29	4	28	33	29
Professionals	82	24	39	11	121	20
General Staff	243	21	38	12	281	20
Total	373	22	81	12	454	21

4.3.2 Occupational Safety Training

On their first day, all new employees receive 8 hours of occupational safety and health training. For those operating production machinery or equipment, engaging in confined space work, welding, or handling hazardous chemicals, an additional 3–12 hours of safety training is required.

Depending on job functions, employees are required to undergo training and certification such as Organic Chemistry Personnel, Forklift Operators, Boiler Operators, Confined Space Supervisors, Fire Safety Managers, Safety Supervisors, Type-1 Pressure Vessel Operators, High-Pressure Gas Container Operators, and Waste Treatment. Regular refresher training ensures compliance with regulations and workplace safety.

2024 Occupational Safety Training Hours (Unit: Hours)

New Employee Training	New Certification Training	Refresher Training	Total
280	2,272	502	3,054

4.3.3 Employee Competency Development

- Shiny Chemical conducts annual training programs based on individual needs to strengthen employees' professional and managerial skills, establishing personalized learning and development plans.
- To identify and nurture potential managerial talents, the company has developed comprehensive training and development programs. Managers regularly undergo courses in human resources, financial risk management, environmental issues, and operations management to enhance decision-making skills.

The total training hours for managers at or above section-chief level in 2024 reached 377 hours.

These training hours were distributed as follows: Human Resources: 130.5 hours, Financial Risk: 56 hours, Environmental Issues: 27 hours, and Operations Management: 163.5 hours.

4.4 Human Rights

Our company values human rights and occupational safety. Based on the Labor Standards Act, Environmental Protection Act, and Occupational Safety and Health Act, as well as international labor and human rights conventions, we regularly review major occupational safety, environmental, and compliance issues with suppliers and contractors. Through various forms of guidance and communication, we urge continuous improvement to ensure compliance with stringent legal requirements, thereby enhancing environmental, safety, and health performance. The company has had no legal cases related to anti-competitive behavior, antitrust, or monopolistic practices. Since its establishment, no labor disputes, corruption, bribery, or discrimination incidents have occurred.

- Respect for Human Rights

  Becoming a "happy enterprise" is a core goal of Shiny Chemical. We firmly believe that people are the foundation of sustainable development and the company's most valuable asset. Guided by this philosophy and our talent development strategy, we strictly comply with domestic and international labor laws and human rights standards across all aspects of employment, compensation and benefits, training, and retirement systems.

  We adhere to internationally recognized fundamental human rights, including freedom of association, the right to collective bargaining, care for the disadvantaged, prohibition of child labor, elimination of forced labor, and elimination of employment and workplace discrimination. The company has established management guidelines to protect employee rights and is committed to offering comprehensive work-life balance measures, creating a positive, safe, and harmonious workplace.

  The company complies with the Gender Equality in Employment Act to build a gender-equal workplace. Employees are entitled to benefits such as menstrual leave, maternity/paternity leave, parental leave without pay, and family care leave. Equality is ensured in compensation, employment conditions, training, and promotion opportunities.

  Our management policies and procedures include the "Communication, Participation and Consultation Management Guidelines," "Improvement Proposal and Reward Implementation Guidelines," "Model Employee Selection Guidelines," "Labor-Management Meeting Implementation Guidelines," "Measures for Prevention of Sexual Harassment, Complaints and Discipline," and "Personnel Review Committee Guidelines." These frameworks aim to create a high-quality workplace, protect employee rights and benefits, eliminate discrimination, and prohibit inhumane treatment, ensuring fair treatment of all employees regardless of race, religion, gender, age, or nationality.

  In practice, specific measures include: providing orientation training for new employees (35 participants, totaling 280 training hours); promoting a workplace culture of equality and inclusiveness; and establishing mechanisms for employee communication. The company values employees' voices and has set up an employee mailbox managed by a designated department to ensure that employee opinions are heard and addressed.

4.5 Occupational Safety and Health

. Shiny Chemical has established a first-level dedicated Environmental Safety and Health Department, responsible for planning, monitoring, and supervising all work related to environmental protection, safety, health, and fire prevention. Each department appoints occupational safety and health representatives to implement related work. In accordance with the company's target management measures, each plant is required to formulate annual environmental, safety, and health execution and self-inspection plans, with follow-up deficiencies and improvements tracked by the Environmental Safety and Health Department.

. To promote occupational safety and health, the company provides related education and training, cultivating employees' knowledge of industrial safety and health, raising awareness, preventing accidents, and safeguarding employees' lives and property. Regular meetings are held to review safety and health policies, workplace monitoring results, health management and promotion, safety proposals, occupational accident investigation reports, and emphasize participation of non-managerial employees. To ensure the effective implementation of occupational safety and health, Shiny Chemical has established international management systems. Yong-An Plant I, Yong-An Plant II, and Qianzhen Plant have all obtained ISO 9001, ISO 14001, and ISO 45001 certifications (ISO 14001 and ISO 45001 valid until May 18, 2026).

. Through the scope of the management systems, the company follows the PDCA (Plan-Do-Check-Act) cycle, continuously assessing, monitoring, and improving to ensure occupational safety and environmental protection. All workers within the plants fall under the scope of the management systems. Before introducing new chemicals, the company reviews and verifies compliance with relevant laws and regulations and implements required safety and pollution control measures.

. The company provides pre-employment physical examinations for new hires and annual health checks for all employees, supported by on-site occupational nurses. Additionally, activities such as weight loss programs and walking events have been organized to promote employee health.

. In 2024, the company conducted a total of 3,054 hours of labor safety education and training, raising workers' preventive awareness and vigilance regarding workplace safety.

. In 2024, the number of occupational accidents within the company's plants was zero.

. Occupational Safety Risk Control Systems

On their first day of employment, all new hires are provided with 8 hours of occupational safety and health training. For positions involving production machinery or equipment, confined space operations, welding, or handling hazardous chemicals, an additional 3–12 hours of safety training is required.

Based on job functions, employees are trained and certified in various fields such as Organic Chemistry, Forklift Operation, Boiler Operation, Confined Space Supervision, Fire Safety Management, Safety Supervision, Type-1 Pressure Vessels, High-Pressure Gas Containers, and Waste Treatment. Regular refresher courses are conducted to ensure compliance with regulations and to maintain safe operations of machinery and workplace environments.

2024 Occupational Safety Training Hours (Unit: Hours)

New Employee Training	New Certification Training	Refresher Training	Total
280	2,272	502	3,054

Status of Environmental Safety Projects

Projects	Execution Method	Remarks	Implementation Period	Progress
ISO 14064-1 Guidance on Inventory and Certification	Guided by LRQA Consultants for certification	2024 designated as the new baseline year Yong-An Plant I Yong-An Plant II Qianzhen Plant	2022.11	Baseline year set as 2024. Inventory list and report have been completed, internal audit under ISO 14064-1 finalized, certification scheduled for July 2025.
PSM 1. Process Safety Information 2. Incident Investigation 3. Management of Change 4. Mechanical Integrity These four areas are divided into four dedicated working groups, each responsible for the implementation and promotion of process safety management.	Guidance by the Occupational Safety and Health Technology Center	Basic Objectives 1. Comply with the "Review and Inspection Regulations for Hazardous Workplaces" (applicable to the Company's PM Plant and Adhesive Plant) or other relevant legal requirements. 2. Assist in the establishment of relevant procedures and management guidelines. 3. Complete related education and training programs. 4. Provide guidance in establishing relevant committees or working groups and ensure their effective operation.	2022.11 ~ 2024.12	1. Relevant education and training have been completed. 2. Relevant procedures and management guidelines have been established and are being continuously implemented to ensure the normal operation of PSM.

Quarterly Contractor Safety Meeting – Contractor Case Sharing

Quarter	Date	Meeting Agenda
Q1	2024/03/18	1. Contractor (transportation and subcontractors) case sharing 2. Safety promotion 3. Mutual safety exchange
Q2	2024/06/11	
Q3	2024/09/25	
Q4	2024/12/11	

Self-Defense Firefighting – Training Plan and Implementation

To strengthen employees' disaster prevention awareness and enhance their emergency response capabilities, the Company conducts regular annual firefighting and safety evacuation drills, including:

- **Fire alarm and firefighting drills:** Familiarizing employees with fire alarm system operations and initial fire suppression measures.
- **Chemical and toxic substance spill response drills:** Simulating hazardous incidents to reinforce employees' on-site response skills and evacuation procedures.
- **Hazard awareness education and training:** Increasing knowledge of risks such as chemicals and fire, and basic handling procedures.
- **Personal Protective Equipment (PPE) training:** Ensuring employees are able to correctly select and wear appropriate protective gear.

Through practical training and simulation drills, employees effectively master the proper response procedures during the initial stages of a disaster, including immediate reporting, preliminary handling, rapid evacuation, and disaster containment. These practices reduce the risk of escalation and enhance overall emergency response effectiveness. The Company is committed to creating a safe and healthy work environment by continuously improving its training and drill systems, building a team capable of crisis response, and strengthening business resilience and fire safety management.

(Photo) Training session (Practical Firefighting Course)

(Photo) Training session (Practical Firefighting Operation Course)

(Photo) Training session (Fire Scene Experience Course)

(Photo) Training session (European Standard Firefighting Suit Training Course)

4.5.1 Occupational Accident Statistical Analysis

The Company compiles annual occupational accident statistics using the Frequency Rate (FR), Severity Rate (SR), and Frequency-Severity Indicator (FSI) of disabling injuries. For 2024, the results were compared against the aggregate injury indices published by the Occupational Safety and Health Administration (OSHA) for the chemical raw materials manufacturing industry (2022–2024). Reports are presented at quarterly Occupational Safety and Health Committee meetings and disclosed to employees. No occupational accidents occurred in 2024.

Based on occupational accident statistical analysis and graded health examination management, no employees of the Company are engaged in positions with a high incidence or high risk of occupational diseases.

2024 Aggregate Injury Indices for the Chemical Industry Published by OSHA and the Company's Plant Indices

2022–2024 Occupational Accident Statistics by Plant

Year / Plant	2022			2023			2024		
Occupational Accident Statistics	FR	SR	FSI	FR	SR	FSI	FR	SR	FSI
Yong-An Plant I	0	0	0	0	0	0	0	0	0
Yong-An Plant II	6	327	1.35	0	0	0	0	0	0
Qianzhen Plant	0	0	0	0	0	0	0	0	0
Intercontinental Storage and Transportation center	NA	NA	NA	0	0	0	0	0	0

Note 1. In 2022, an employee sustained an injury due to a fall at Yong-An Plant II.

Occupational Safety and Health Statistics

Average Comprehensive Injury Indices for the Chemical Industry Announced by the Occupational Safety and Health Administration (2022–2024)

Industry	FR	SR	FSI
Manufacture of Basic Chemicals, Fertilizers, Nitrogen Compounds, Plastics, Rubber Raw Materials, and Synthetic Fibers (Industry Code: 18)	1.12	448	0.7
Manufacture of Basic Chemicals (Industry Code: 181)	1.08	711	0.87

2024 Disabling Injury Index Statistics by Plant

Plant	FR	SR	FSI	LDR	AR	ODR	因公死亡總數
Yong-An Plant I	0	0	0	0	0	0	0
Yong-An Plant II	0	0	0	0	0	0	0
Qianzhen Plant	0	0	0	0	0	0	0
Intercontinental Storage and Transportation center	0	0	0	0	0	0	0

Note 1. The statistics do not include commuting accidents (as defined under the Occupational Safety and Health Act as traffic accidents occurring during the execution of duties), nor do they include minor injuries that can be resolved with on-site first aid.
Note 2. Disabling Injury Frequency Rate (FR) = (Number of disabling injury cases × 1,000,000) ÷ Total hours worked
Note 3. Disabling Injury Severity Rate (SR) = (Total lost workdays × 1,000,000) ÷ Total hours worked
Note 4. Frequency-Severity Indicator (FSI) = √ (Disabling Injury Frequency Rate (FR) × Disabling Injury Severity Rate (SR) ÷ 1,000)
Note 5. The total number of lost workdays is calculated starting from the day following the occurrence of the accident.
Note 6. Lost Day Rate (LDR) = (Total lost workday hours ÷ Total hours worked × 200,000)
Note 7. Absentee Rate (AR) = (Total absentee hours ÷ Total hours worked) × 100%
Note 8. Occupational Disease Rate (ODR) = (Total number of occupational injuries × Total hours worked × 1,000,000)

5 Social Engagement

5.1 Community Care Initiatives

Stakeholders	Significance	Issues	Communication Channels	Communication Frequency
Community Groups	Actively participate in community activities to strengthen neighborhood relations	Industry-academia collaboration, community engagement	Administration Department as external liaison	Irregular
Government Agencies	Cooperate with government agencies in organizing/participating in activities to fulfill corporate social responsibility	Energy conservation and sustainability	Administration Department as external liaison	Irregular

Shiny Chemical has been deeply rooted in Kaohsiung and consistently values the development and harmony of the local community. Temples, as the core of folk beliefs, serve not only as important gathering places for residents but also as key platforms for fostering community cohesion. Therefore, we actively sponsor temple events, enhance local engagement, listen to residents' feedback, and formulate improvement measures to minimize the impact of our production activities on the surrounding environment.

In addition, we have long supported various community welfare initiatives, including sponsoring volunteer firefighter teams, local school anniversaries and graduation ceremonies, as well as donating disaster relief equipment to fire brigades and funding to police associations. Through these practical actions, we safeguard public safety. With continuous and meaningful contributions, we not only strengthen ties with the community but also deepen residents' trust in Shiny Chemical, working together to create a safe and harmonious living environment.

Shiny Chemical also actively fulfills its corporate social responsibility by adopting and maintaining air quality purification zones in elementary schools. By dedicating efforts to campus greening and beautification, we not only improve the school environment but also support environmental education in practice, providing students with a healthier learning space.


高雄市永安國民小學

感謝狀

校長 李安世

人文・關懷・卓越・創新

Project	Description	Implementation Results
Support for Disadvantaged Groups	Sponsored educational materials for underprivileged schoolchildren in remote areas	NT$ 1.28 million contributed
Environmental Initiatives	Adoption of air quality purification zones and participation in beach cleaning activities	NT$ 0.1 million contributed
Community and Cultural Activities	Supported neighborhood and temple events in communities surrounding the plant	NT$ 0.871 million contributed

Due to the nature of our industry, the Company's operations may have actual or potential negative impacts on nearby communities, such as emissions of volatile organic compounds during production processes. To prevent adverse effects on employee health and residents' quality of life, we conduct continuous monitoring of air and water quality around our plants every year. These efforts aim to mitigate the potential impact of our operations on nearby residents and reduce community concerns regarding air and water pollution.

We also strengthen equipment leak inspections, perform irregular facility checks, and submit monitoring results to the competent authorities for record-keeping. Monitoring items and frequency vary depending on operational conditions. For example, Yong-An Plant I conducts the following environmental monitoring:

- **Air:** Volatile organic compounds (VOCs), sulfur dioxide (SO_2), particulate matter, nitrogen oxides (NOx), oxygen, methane, and total hydrocarbons.
- **Water:** pH value, water temperature, chemical oxygen demand (COD), biochemical oxygen demand (BOD), suspended solids, oil and grease, true color, nitrate nitrogen, dissolved manganese, dissolved iron, phenols, and ammonia nitrogen.
- **Noise:** Measured at plant boundaries, depending on operational areas.

5.2 Academic Education

Mutual prosperity with society is the core principle guiding our social engagement. Industry–academia collaboration and educational promotion have long been among Shiny Chemical's key approaches in advancing social responsibility and governance. We believe that enabling academia to gain an early understanding of the petrochemical industry—its significance, the unique characteristics of Shiny Chemical, and our vision for future development—helps attract more talent to join the petrochemical sector.

To this end, we have collaborated with National Taiwan University of Science and Technology and National United University on joint research and development projects, creating strong synergies that bridge theory and practice between academia and industry.

5.3 Caring for the Disadvantaged

At Shiny Chemical, we uphold the spirit of employee participation and caring for disadvantaged groups, dedicating ourselves to a variety of social engagement initiatives. By encouraging greater employee involvement in corporate social responsibility (CSR), we aim to internalize the value of social contribution within every individual. This influence then extends from employees to their families and into society, ultimately forming a virtuous cycle. Becoming a "happy enterprise" is both our aspiration and our long-term goal.

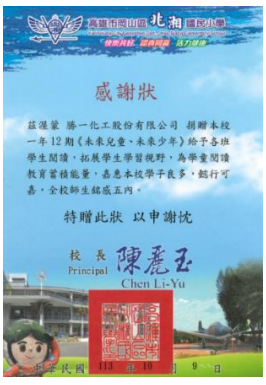
Guided by this philosophy and our human resource development strategy, we strictly comply with domestic and international labor regulations and human rights standards across all aspects of employment, including recruitment, compensation and benefits, training, and retirement systems. We respect internationally recognized fundamental human rights, such as freedom of association, the right to collective bargaining, care for disadvantaged groups, prohibition of child labor, elimination of all forms of forced labor, and the eradication of employment and workplace discrimination. To further safeguard employee rights, we have established a range of management measures and are committed to providing comprehensive and diverse work–life balance programs that foster a safe, inclusive, and harmonious workplace environment.

To promote employment opportunities for persons with disabilities, the Company gives priority to disadvantaged groups in recruitment. As of now, we have employed four individuals with disabilities.

Furthermore, at our year-end banquet, Shiny Chemical invited the Ching-Ye Elementary School Choir as special guest performers. This initiative served as a concrete expression of recognition and encouragement, honoring the children's perseverance and courage in pursuing their dreams. On the day of the performance, their voices conveyed hope and strength, deeply moving everyone in attendance. Through such efforts, we aspire to inspire broader social awareness and support for disadvantaged groups, creating greater opportunities for these children to grow and thrive. Together, we aim to build a warmer and more compassionate society.

Shiny Chemical fully recognizes the importance of science education to individuals, enterprises, and national development. In collaboration with the *CommonWealth Education Media and Publishing Group*, we promote science popularization for children and adolescents by donating science magazines to local communities, aiming to enhance students' scientific literacy.

The Company provides complimentary subscriptions of *Future Children* and *Future Youth* magazines to 10 elementary and junior high schools across Yong-An, Gangshan, and Mituo Districts, covering 72 classes and benefiting more than 1,300 students. Through these high-quality extracurricular resources, we seek to cultivate reading habits, stimulate students' interest in science, and encourage them to broaden their horizons from an early age. In doing so, we aspire to inspire innovative thinking and enable future contributions in the scientific field that can create a lasting positive impact on society.



5.4 Participation in Industry Associations

All of the Company's corporate governance and operational practices strictly comply with the relevant regulations for listed companies, as well as the *Corporate Sustainability Best Practice Principles for TWSE/TPEx Listed Companies* established by the Taiwan Stock Exchange. In addition to establishing comprehensive internal corporate governance standards, we also actively participate in or respond to important domestic and international external frameworks and initiatives, and engage with various industry associations to ensure that our governance practices remain aligned with evolving trends.

Association	Purpose of Participation
Taiwan Paint Industry Association	To enhance interaction and exchange among industry peers
Chemical Engineering Society of Taiwan	To strengthen engagement and exchange with the academic community
Kaohsiung Industrial Association	To foster interaction and collaboration with industries in Kaohsiung and nearby industrial zones
Southern Taiwan Industry Innovation and Services Association (Industrial Technology Research Institute)	To promote cross-industry exchange, advance the green economy and green innovation, create value and business opportunities, and implement corporate social responsibility and environmental sustainability
Kaohsiung City Chemical Disaster Joint Defense Team – 7th Group	To establish emergency response mechanisms for handling unexpected incidents

6 Appendix

Appendix 1 GRI Standards Index

Statement of use	Shiny Chemical has reported in accordance with the GRI Standards for the period 2024/1/1 to 2024/12/31
GRI 1 used	GRI 1 : Foundation 2021
Applicable GRI Sector Standard(s)	None

GRI 2 General Disclosure

GRI standards/topics	Corresponding Chapter / Explanation	Page
2-1 Organizational details	Report Overview	-
2-2 Entities included in the organization's sustainability reporting	Report Overview	-
2-3 Reporting period, frequency and contact point	Report Overview	-
2-4 Restatements of information	Report Overview	-
2-5 External assurance	Report Overview	-
2-6 Activities, value chain and other business relationships	2.5 Customer Value 2.6 Sustainable Supply Chain Management	P.34-39 P.40-41
2-7 Employees	4.2.1 Employment of Staff	P.69-70
2-8 Workers who are not employees	4.2.1 Employment of Staff	P.69-70
2-9 Governance structure and composition	2.1 Management Philosophy, Organizational Structure, and Corporate Governance	P.21-29
2-10 Nomination and selection of the highest governance body	2.1.5 Board Structure and Responsibilities	P.25-26
2-11 Chair of the highest governance body	2.1.5 Board Structure and Responsibilities	P.25-26
2-12 Role of the highest governance body in overseeing the management of impacts	1.1.2 Corporate Sustainability Development Committee Members 1.1.3 Implementation Status of Sustainability Organization Operation 1.2 Materiality Analysis and Stakeholder Communication 2.1.5 Board Structure and Responsibilities	P.10 P.11 P.12-19 P.25-26
2-13 Delegation of responsibility for managing impacts	2.1.5 Board Structure and Responsibilities 2.1.7 Operations of the Audit Committee	P.25-26 P27
2-14 Role of the highest governance body in sustainability reporting	From the Founder 1.1.2 Corporate Sustainability Development Committee Members	P.3 P.10
2-15 Conflicts of interest	2.1.5 Board Structure and Responsibilities 2.1.8 Integrity Management	P.25-26 P.28
2-16 Communication of critical concerns	1.2.2 Stakeholder Communication	P.13-14
2-17 Collective knowledge of the highest governance body	2.1.5 Board Structure and Responsibilities	P.25-26
2-18 Evaluation of the performance of the highest governance body	2.1.5 Board Structure and Responsibilities 2.1.6 Remuneration Committee	P.25-26 P.26
2-19 Remuneration policies	2.1.6 Remuneration Committee	P.26
2-20 Process to determine remuneration	2.1.6 Remuneration Committee	P.26
2-21 Annual total compensation ratio	4.2.3 Employee Compensation and Benefits	P.72
2-22 Statement on sustainable development strategy	From the Founder 1.1.1 Sustainability Policy 1.1.2 Corporate Sustainability Development Committee Members	P.3 P.9 P.10
2-23 Policy commitments	1.1.1 Sustainability Policy 1.2 Materiality Analysis and Stakeholder Communication 3.4 Environmental Protection Strategies and Policies 4.1.1 Respect for Human Rights	P.9 P.12-19 P.55-61 P.68

GRI standards/topics	Corresponding Chapter / Explanation	Page
2-24 Embedding policy commitments	1.1.1 Sustainability Policy 1.2.7 Material Topics and Risk Management 2.1 Management Philosophy, Organizational Structure, and Corporate Governance 2.1.9 Internal Control 2.5 Customer Value 2.6 Sustainable Supply Chain Management 3.4 Environmental Protection Strategies and Policies 4.1.1 Respect for Human Rights	P.9 P.16-19 P.21-29 P.29 P.34-39 P.40-41 P.55-61 P.68
2-25 Processes to remediate negative impacts	1.1.2 Corporate Sustainability Development Committee Members 2.3.3 Tax Issues and Stakeholder Communication 2.5.3 Customer Relationship Management 4.1.1 Diversity and Inclusion	P.10 P.32 P.38-39 P.68
2-26 Mechanisms for seeking advice and raising concerns	1.2.2 Stakeholder Communication 2.3.3 Tax Issues and Stakeholder Communication 2.5.3 Customer Relationship Management 4.4 Human Rights	P.13-14 P.32 P.38-39 P.78
2-27 Compliance with laws and regulations	2.1.8 Integrity Management 2.1.9 Internal Control 3.5.2 Air Pollutant Emissions in Compliance with Environmental Regulations 4.2.1 Employment of Staff 4.2.5 Employee Welfare System 4.2.6 Employee Health and Care 4.3.2 Occupational Safety Training 4.4 Human Rights 4.5 Occupational Safety and Health	P.28 P.29 P.63 P.69-70 P.73-74 P.75-76 P.77 P.78 P.79-82
2-28 Membership associations	5.4 Participation in Industry Associations	P.86
2-29 Approach to stakeholder engagement	1.2.1 Stakeholder and Material Topics Identification 1.2.2 Stakeholder Communication	P.12 P.13-14
2-30 Collective bargaining agreements	4.2.2 Labor-Management Relations	P.71

GRI Topic Standards

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Remarks	Page
GRI3-1 Process to determine material topics		1.2 Materiality Analysis and Stakeholder Communication		P.12-19
GRI3-2 List of material topics		1.2.4 Results of Materiality Analysis		P.15
GRI3-3 Management of material topics		1.2.7 Material Topics and Risk Management		P.16-19
GRI 201 : Economic Performance 2016	201-1 Direct economic value generated and distributed	2.2 Operating Performance	See 2024 Annual Report (II) – Financial Statements	P.30-31
		2.3 Tax Policy and Management	Government subsidies (ROC, Taiwan)	P.32
		4.2 Talent Attraction and Retention		P.69-76
	201-2 Financial implications and other risks and opportunities due to climate change	3.1 Climate Change Risks and Responses		P.42-48
	201-3 Defined benefit plan obligations and other retirement plans	4.2.5 Employee Welfare System		P.73-74
	201-4 Financial assistance received from government	2.2 Operating Performance		P.30-31

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Remarks	Page
GRI 202 Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	4.2.3 Employee Compensation and Benefits		P.72
	202-2 Proportion of senior management hired from the local community	2.1.5 Board Structure and Responsibilities 4.2.1 Employment of Staff	See 2024 AGM Report, Section II – Directors and Senior Management Information.	P.25-26 P.69-70
GRI 203 Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	Sustainability Performance 5. Social Engagement		P.5-6 P.83-86
GRI 204 Procurement Practices 2016	204-1 Proportion of spending on local suppliers	2.6 Sustainable Supply Chain Management	All suppliers are local suppliers in Taiwan.	P.40-41
GRI 205 Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	2.1.8 Integrity Management 4.3.1 Employee Training and Development		P.28 P.77
	205-2 Communication and training about anti-corruption policies and procedures	2.1.8 Integrity Management		P.28
	205-3 Confirmed incidents of corruption and actions taken			
GRI 206 Anti-competitive Behavior 2016	206-1 Legal actions involving anticompetitive behavior, anti-trust, and monopoly practices	4.4 Human Rights		P.78
GRI 207 Tax 2019	207-1 Approach to tax	2.3.1 Tax Guidelines and Policies		P.32
	207-2 Tax governance, control and risk management	2.3 Tax Policy and Management		
	207-3 Stakeholder engagement and management of concerns related to tax	2.3.3 Tax Issues and Stakeholder Communication		

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Page
GRI 301 Materials 2016	301-1 Materials used by weight or volume	2.5.2 Product Quality and Safety	P.35-37
GRI 302 Energy 2016	302-1 Energy consumption within the organization	3.2 Energy Management	P.49-51
	302-3 Energy intensity	3.2 Energy Management	P.49-51
	302-4 Reduction of energy consumption	3.2 Energy Management	P.49-51
	302-5 Reductions in energy requirements of products and services	3.2 Energy Management 3.5 Air Pollution Control	P.49-51 P.62-64
GRI 303 Water and Effluents 2018	303-1 Interactions with water as a shared resource	3.7 Water Resource Management	P.66-67
	303-2 Management of water discharge-related impacts	3.7 Water Resource Management	P.66-67
	303-3 Water withdrawal	3.7 Water Resource Management	P.66-67
	303-4 Water discharge	3.7 Water Resource Management	P.66-67
	303-5 Water consumption	3.7 Water Resource Management	P.66-67

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Page
GRI 305 Emissions 2016	305-1 Direct (Scope 1) GHG emissions	3.3 Greenhouse Gas (GHG) Management	P.52-54
	305-2 Energy indirect (Scope 2) GHG emissions	3.3 Greenhouse Gas (GHG) Management	P.52-54
	305-3 Other indirect (Scope 3) GHG emissions	3.3 Greenhouse Gas (GHG) Management	P.52-54
	305-4 GHG emissions intensity	3.3 Greenhouse Gas (GHG) Management	P.52-54
	305-5 Reduction of GHG emissions	3.3 Greenhouse Gas (GHG) Management	P.52-54
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	3.5 Air Pollution Control	P.62-64
GRI 306 Waste 2020	306-1 Waste generation and significant waste-related impacts	3.6 Supplier Air Pollution Management	P.65-67
	306-2 Management of significant wasterelated impacts	3.6 Supplier Air Pollution Management	P.65-67
	306-3 Waste generated	3.6 Supplier Air Pollution Management	P.65-67
	306-4 Waste diverted from disposal	3.6 Supplier Air Pollution Management	P.65-67
	306-5 Waste directed to disposal	3.6 Supplier Air Pollution Management	P.65-67
GRI 308 Supplier Environment Evaluation 2016	308-1 New suppliers that were screened using environmental criteria	2.6 Sustainable Supply Chain Management	P.40-41
	308-2 Negative environmental impacts in the supply chain and actions taken	2.6 Sustainable Supply Chain Management 3.5 Air Pollution Control	P.40-41 P.62-64
GRI 401 Employment 2016	401-1 New employee hires and employee turnover	4.2.1 Employment of Staff	P.69-70
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	4.2.3 Employee Compensation and Benefits 4.2.5 Employee Welfare System	P.72 P.73-74
	401-3 Parental leave	4.2.5 Employee Welfare System	P.73-74
GRI 402 Labor/ Management Relations Topic Disclosures 2016	402-1 Minimum notice periods regarding operational changes	4.2.2 Labor-Management Relations	P.71

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Page
GRI 403 Occupational Health and Safety 2018	403-1 Occupational health and safety management system	4.5 Occupational Safety and Health	P.79-82
	403-2 Hazard identification, risk assessment, and incident investigation	3.4.2 Occupational Safety and Environmental Protection Supervision and Management	P.57-61
	403-3 Occupational health services	4.2.6 Employee Health and Care	P.75-76
	403-4 Worker participation, consultation, and communication on occupational health and safety	3.4.2 Occupational Safety and Environmental Protection Supervision and Management 4.5 Occupational Safety and Health	P.57-61 P.79-82
	403-5 Worker training on occupational health and safety	4.3.2 Occupational Safety Training 4.5 Occupational Safety and Health	P.77 P.79-82
	403-6 Promotion of worker health	4.2.6 Employee Health and Care	P.75-76
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	4.5 Occupational Safety and Health	P.79-82
	403-8 Workers covered by an occupational health and safety management system	4.2.6 Employee Health and Care	P.75-76
	403-9 Work-related injuries	4.5.1 Occupational Accident Statistical Analysis	P.82
	403-10 Work-related ill health	4.2.6 Employee Health and Care 4.5.1 Occupational Accident Statistical Analysis	P.75-76 P.82
GRI 404 Training and Education 2016	404-1 Average hours of training per year per employee	4.3.1 Employee Training and Development	P.77
	404-2 Programs for upgrading employee skills and transition assistance programs	4.3.3 Employee Competency Development	P.77
	404-3 Percentage of employees receiving regular performance and career development reviews	4.2.4 Performance Management 4.3.3 Employee Competency Development	P.74 P.77
GRI 405 Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	4.2.1 Employment of Staff	P.69-70
	405-2 Programs for upgrading employee skills and transition assistance programs	4.2.3 Employee Compensation and Benefits	P.72
GRI 406 No discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	4.4 Human Rights	P.78
GRI 408 Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	4.1.1 Respect for Human Rights 4.4 Human Rights	P.68 P.78
GRI 409 Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	4.4 Human Rights	P.78
GRI 411 Rights of Indigenous Peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	The Company actively supports local community development; no violations of Indigenous peoples' rights have been identified.	

GRI standards/topics	Disclosure	Corresponding Chapter / Explanation	Remarks	Page
GRI 413 Local community 2016	413-1 Operations with local community engagement, impact assessments and development programs	1.2 Materiality Analysis and Stakeholder Communication 5. Social Engagement		P.12-19 P.83-86
	413-2 Operations with significant actual and potential negative impacts on local communities	5. Social Engagement		P.83-86
GRI 414 Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	2.6 Sustainable Supply Chain Management 3.5.3 Supplier Air Pollution Management		P.40-41 P.64
GRI 416 Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	2.5.2 Product Quality and Safety 2.5.3 Customer Relationship Management		P.35-37 P.38-39
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	2.5.2 Product Quality and Safety		P.35-37
GRI 417 Marketing and Labeling Topic Disclosures 2016	417-1 Requirements for product and service information and labeling	2.5.2 Product Quality and Safety 2.5.3 Customer Relationship Management		P.35-37 P.38-39
	417-2 Incidents of non-compliance concerning product and service information and labeling	2.5.2 Product Quality and Safety 2.5.3 Customer Relationship Management	In 2024, the Company had no incidents of non-compliance with regulations concerning product and service information and labeling.	P.35-37 P.38-39
	417-3 Incidents of non-compliance concerning marketing communications		There were no incidents of non-compliance with marketing and communication-related regulations.	
GRI 418 Customer privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	2.5.3 Customer Relationship Management	The Company has established Confidential Information Management Guidelines to safeguard sensitive matters in operations and client interactions. Appropriate measures are in place to ensure confidentiality, and to date, there have been no complaints regarding breaches of customer privacy or loss of customer data.	P.38-39
GRI 419 Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	2.3 Tax Policy and Management	In 2024, the Company recorded no significant violations in the social or economic domains.	P.32
		2.5.2 Product Quality and Safety		P.35-37
		4. Happy Workplace		P.68-82

Appendix 2 SASB Comparison Table

Dimension	Disclosure Topic	Metric Code	Indicator Description	Corresponding chapter/section	Page
Environment	GHG emissions	RT-CH-110a.1	Disclose the GHG emissions of Scope 1 and their percentage (%) under the relevant emission limitation regulations	3.3.1 Greenhouse Gas (GHG) Management Performance	P.52-53
		RT-CH-110a.2	Describe long-term and short-term goals or plans for managing Scope 1 emissions, and conduct a performance analysis of these goals	3.3.1 Greenhouse Gas (GHG) Management Performance	P.52-53
	Air Quality	RT-CH-120a.1	Disclosure of emissions of the following air pollutants: (1) nitrogen oxides, (2) sulfur oxides, (3) volatile organic compounds, and (4) hazardous air pollutants	3.5.1 Air Pollution Control Measures 3.5.2 Air Pollutant Emissions in Compliance with Environmental Regulations	P.62 P.63
	Energy Management	RT-CH-130a.1	Disclosure of emissions of the following air pollutants: (1) nitrogen oxides(GJ), (2) sulfur oxides (%), (3) volatile organic compounds (%), and (4) hazardous air pollutants (GJ)	3.2 Energy Management	P.49-51
		RT-CH-140a.1	Disclosure: (1) Total water withdrawal, (2) Total water consumption, (3) Operating locations in "high" or "very high" water shortage areas and the percentage of water withdrawal/consumption	3.7 Water Resource Management	P.66-67
	Water resource management	RT-CH-140a.2	Disclose the number of cases of violations of water quality related discharge permits, standards and regulations	3.7 Water Resource Management In 2024, the Company recorded no incidents of non-compliance with water discharge permits, standards, or regulations.	P.66-67
		RT-CH-140a.3	Describe water resource management risks and strategies, and risk mitigation practices	3.1 Climate Change Risks and Responses 3.7 Water Resource Management	P.42-48 P.66-67
	Hazardous industrial waste management	RT-CH-150a.1	Disclose the total amount of hazardous waste generated by CSCC and the percentage of recycling	3.6 Supplier Air Pollution Management No hazardous waste is generated in the Company's production process.	P.65
Social Capital	Social relations	RT-CH-210a.1	Disclose the process of discussing the risks and opportunities associated with participating in the management of community benefits	5.1 Community Care Initiatives	P.83-84
Human Capital	Labor health and safety	RT-CH-320a.1	Disclose: The (1) accident rate (TRIR) (2) fatality rate of full-time employees and contract workers	4.5.1 Occupational Accident Statistical Analysis	P.82
		RT-CH-320a.2	Description of the assessment and monitoring of health risks for full-time and contract workers (in the reduction of long-term/chronic exposure)	4.2.6 Employee Health and Care	P.75-76
Business Model & Innovation	Product design to improve efficiency in the stage of use	RT-CH-410a.1	Revenue from products that can improve resource efficiency at the stage of use	NONE	
	Chemical safety and environmental management	RT-CH-410b.1	Disclosure of the percentage of products containing GHS Type 1 and GHS Type 2 health and environmental hazards, and the percentage of such products that have been evaluated for hazards	2.5.2 Product Quality and Safety	P.35-37

		RT-CH-410b.2	Development strategies for managing chemical concerns and developing alternative products that reduce human and environmental impacts	2.5.2 Product Quality and Safety 2.6 Sustainable Supply Chain Management	P.35-37 P.40-41
	Genetically modified products	RT-CH-410c.1	Disclose the percentage of total revenue generated by genetically modified products (GMOs)	None	
Corporate Governance	Regulatory and policy management	RT-CH-530a.1	Describe CSCC's position on government regulation and policy planning regarding environmental and social issues	2.1.7 Operations of the Audit Committee 2.1.9 Internal Control	P.27 P.29
	Occupational safety and emergency response	RT-CH-540a.1	Disclose the number of process safety incidents (PSIC), process safety incident rate (PSTIR), and process safety incident severity rate (PSISR)	3.4.2 Occupational Safety and Environmental Protection Supervision and Management 4.5.1 Occupational Accident Statistical Analysis	P.57-61 P.82
		RT-CH-540a.2	Disclose the number of transportation accidents	3.4.2 Occupational Safety and Environmental Protection Supervision and Management 4.5.1 Occupational Accident Statistical Analysis	P.57-61 P.82

Appendix 3 Sustainability Disclosure Indicators -Chemical Industry

Items	Indicator items	Corresponding chapter/section	Page
1	Total energy consumption Percentage of purchased electricity, Utilizationrate(renewable energy/total energy) Total selfgenerated and self-use energy	3.2 Energy Management	P.49-51
2	Total water withdrawn Total water consumption Mandatorily or voluntarily disclosed total wastewater (sewage) discharged.	3.7 Water Resource Management	P.66-67
3	Total amount of hazardous wastes generated during the production process of products and percentage of hazardous wastes recycled, as required to be disclosed under the law or to be disclosed voluntarily.	3.6 Supplier Air Pollution Management No hazardous waste is generated in the Company's production process.	P.65
4	Number of employees in and rate of occupational accidents.	4.5.1 Occupational Accident Statistical Analysis	P.82
5	Operations with significant actual and potential negative impacts on local communities.	5.1 Community Care Initiatives	P.83-84
6	Concrete valid mechanisms and actions implemented by the company itself and its suppliers to mitigate negative environmental or social impact.	2.5.2 Product Quality and Safety 2.6 Sustainable Supply Chain Managemens	P.35-37 P.40-41
7	Product production by product category	2.5.2 Product Quality and Safety	P.35-37

Appendix 4 TCFD Index

Topic	Indicator Description	Corresponding chapter/section	Page
Governance	Describe the Board's oversight of climate-related risks and opportunities.	1.1 Sustainability Vision and Strategy 1.2 Materiality Analysis and Stakeholder Communication 3.1 Climate Change Risks and Responses	P.10 P.12-19 P.42-48
	Describe management's role in assessing and managing climate-related risks and opportunities.	3.1 Climate Change Risks and Responses	P.42-48
Strategy	Describe the climate-related risks and opportunities identified over the short, medium, and long term.	3.1.1 Climate Change Adaptation and Mitigation Strategy	P.43-45
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	3.1.1 Climate Change Adaptation and Mitigation Strategy	P.43-45
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	3.1.2 Climate Risk Scenario Analysis	P.46-47
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	3.1.1 Climate Change Adaptation and Mitigation Strategy	P.43-45
	Describe the organization's processes for managing climate-related risks.	1.2.7 Material Topics and Risk Management 3.1.2 Climate Risk Scenario Analysis 3.3 Greenhouse Gas (GHG) Management	P.16-19 P.46-47 P.52-54
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	1.2.7 Material Topics and Risk Management 3.1.2 Climate Risk Scenario Analysis 3.3 Greenhouse Gas (GHG) Management	P.16-19 P.46-47 P.52-54
Metrics and Targets	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	3.1.3 Climate-Related Response Strategy Targets and Financial Plans 3.3.1 Greenhouse Gas (GHG) Management Performance	P.48 P.52-53
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	3.1.3 Climate-Related Response Strategy Targets and Financial Plans	P.48

Appendix 5: Climate-Related Information for TWSE/TPEx Listed Companies

Indicator Description	Corresponding chapter/section	Page
1. Description of the Board of Directors' and Management's Oversight and Governance of Climate-Related Risks and Opportunities	1.2.7 Material Topics and Risk Management 3.1.2 Climate Risk Scenario Analysis	P.16-19 P.46-47
2. Description of the Financial Impact of Extreme Weather Events and Transition Actions	3.1.1 Climate Change Adaptation and Mitigation Strategy	P.43-45
3. Description of How the Identification, Assessment, and Management of Climate Risks Are Integrated into the Overall Risk Management System	3.1.2 Climate Risk Scenario Analysis	P.46-47
4. Description of How the Identification, Assessment, and Management of Climate Risks Are Integrated into the Overall Risk Management System	1.2.7 Material Topics and Risk Management 3.1.1 Climate Change Adaptation and Mitigation Strategy 3.1.2 Climate Risk Scenario Analysis 3.3 Greenhouse Gas (GHG) Management	P.16-19 P.43-45 P.42-43 P.46-47
5. If Scenario Analysis is Used to Assess Resilience to Climate Change Risks, provide details on the scenarios, parameters, assumptions, analytical factors, and key financial impacts employed	-	-
6. If there are any transition plans for managing climate-related risks, describe the content of the plan, along with the indicators and targets used for identifying and managing physical and transition risks	-	-
7. If internal carbon pricing is used as a planning tool, explain the basis for pricing determination	-	-
8. If climate-related targets are set, provide details on the activities covered, the scope of greenhouse gas emissions, the planning timeline, and annual progress updates. If carbon offsetting or Renewable Energy Certificates (RECs) are used to achieve these targets, specify the source and quantity of the carbon offset credits or the number of RECs	-	-
9. GHG inventory and assurance status, reduction targets, strategies, and specific action plans	3.1.1 Climate Change Adaptation and Mitigation Strategy	P.43-45

Appendix 6 Auditor's Limited Assurance Report

Crowe

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會計師有限確信報告

勝一化工股份有限公司　公鑒：

勝一化工股份有限公司 2024 年度永續報告書，業經本會計師針對勝一化工股份有限公司所選定之績效指標執行確信程序竣事，並出具有限確信報告。

確信標的資訊與適用基準

勝一化工股份有限公司所選定之績效指標（以下簡稱標的資訊）與適用基準，請詳附件一「確信項目彙總表」。

管理階層之責任

管理階層之責任係依照臺灣證券交易所「上市公司編製與申報永續報告書作業辦法」、全球永續性報告協會（Global Reporting Initiatives，GRI）發布之通用準則與主題準則及永續會計準則理事會（Sustainability Accounting Standards Board, SASB）發布之準則編製標的資訊，且維持與標的資訊編制有關之必要內部控制，以確保標的資訊未存有導因於舞弊或錯誤之重大不實表達。

會計師之責任

本會計師之責任係依照確信準則 3000 號「非屬歷史性財務資訊查核或核閱之確信案件」規劃及執行有限確信案件，基於所執行之程序與所獲取之證據，對標的資訊(詳附件一)是否未存有重大不實表達取得有限確信，並出具有限確信報告。相較於合理確信案件，有限確信案件所執行程序之性質及時間不同，其範圍亦較小，故於有限確信案件所取得之確信程度亦明顯低於合理確信案件中取得者。

本會計師係基於專業判斷規劃及執行確信程序，以獲取相關標的資訊之有限確信證據，且任何內部控制均受有先天限制，因此未必能查出所有業已存在之重大不實表達。本會計師執行確信程序包括：

- 對參與編製標的資訊之管理階層及相關人員進行查詢，以瞭解編製標的資訊之政策、流程、內部控制及資訊系統，以辨認可能存有重大不實表達之領域；
- 對標的資訊選取樣本進行檢查、驗算、重新執行、觀察及分析性程序等程序，以取得有限確信之證據。

先天限制

由於諸多確信標的係屬非財務資訊，相較於財務資訊之確信受有更多先天性限制，故該等資訊之相關性、重大性與正確性之解釋可能涉及更多管理階層之重大判斷、假設與解釋，不同利害關係人等該對資訊亦可能有不同之解讀。

獨立性及品質管理規範

本會計師及所隸屬會計師事務所已遵循會計師職業道德規範中有關獨立性及其他道德規範之規定，該規範之基本原則為正直、公正客觀、專業能力及專業上應有之注意、保密與專業行為。

本會計師所隸屬會計師事務所適用品質管理準則 1 號「會計師事務所之品質管理」，該品質管理準則規定會計師事務所設計、付諸實行及執行品質管理制度，包含與遵循職業道德規範、專業準則及所適用法令有關之政策或程序。

確信結論

依據所執行之程序及所獲取之證據，本會計師並未發現標的資訊在所有重大方面有未依照適用基準編製而須作修正之情事。

其他事項

本確信報告出具後，勝一化工股份有限公司對任何確信標的資訊或適用基準之變更，本會計師將不負就該等資訊重新執行確信工作之責任。

國富浩華聯合會計師事務所

會計師：李　國　銘

民國 114 年 8 月 27 日

附件一

確信項目彙總表

編號	確信項目 (臺灣證券交易所「上市公司編製與申報永續報告書作業辦法」)	指標敘述	對應章節	衡量基準
1	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號一	消耗能源總量、外購電力百分比、再生能源使用率及自發自用能源總量。	3.2.1能源指標	勝一化工公司主要營運場所Yong-An Plant I、Yong-An Plant II、Qianzhen Plant及Intercontinental Storage and Transportation center，依營運場所耗用之能源類別及總量彙總計算後以表格呈現揭露，本次僅針對2024年度之能源消耗總量、外購電力百分比、再生能源使用率及自發自用能源總量數據執行確信程序。
2	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號二	總取水量、總耗水量、依法規要求或自願揭露之廢（污）水排放量。	3.7水資源管理	勝一化工公司主要營運場所Yong-An Plant I、Yong-An Plant II、Qianzhen Plant及Intercontinental Storage and Transportation center，分別依營運場所之取水及排水類別以彙整表格呈現揭露其總取水量、用水量廢水排放量，本次針對2024年度之總取水量、總耗水量及廢水排放量數據執行確信程序。
3	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號三	依法規要求或自願揭露之產品生產過程所製造之有害廢棄物總量及回收百分比。	3.6廢棄物污染減量	勝一化工公司主要營運場所Yong-An Plant I、Yong-An Plant II、Qianzhen Plant及Intercontinental Storage and Transportation center之廢棄物均屬一般事業廢棄物；廢棄物係委託環保署核准之廠商清運、處理，其最終處置方式為焚化處理。本次僅針對2024年度之廢棄物產出量執行確信程序。
4	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號四	員工職業災害人數及比率。	4.5.1職業災害統計分析	勝一化工公司2024年度皆未發生事故，其失能傷害頻率(FR)及失能傷害嚴重率(SR)皆為0，故未揭露傷害類別資訊。本次僅針對Yong-An Plant I、Yong-An Plant II、Qianzhen Plant及Intercontinental Storage and Transportation center之總合傷害指數及失能傷害指數執行確信程序。

5	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號五	對當地社區具有顯著實際或潛在負面衝擊之營運活動。	5.1社區關懷行動	勝一化工公司主要營運場所對當地社區具有顯著實際或潛在負面衝擊之營運活動係對當地社區之環境面衝擊，本次僅針對2024年度之影響說明執行確信程序。
6	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號六	企業本身及其供應商為降低對環境或社會之負面衝擊所採取之具體、有效機制及作為。	3.3.2 節能減碳 3.4.1環境保護管理	勝一化工公司持續執行節能減碳相關措施，本次僅針對2024年度之節能減碳實績數據及環境保護管理措施執行確信程序。
7	「上市公司編製與申報永續報告書作業辦法」第四條第一項附表一之二永續揭露指標—化學工業編號七	依產品類別之主要產品產量。	2.5.2產品品質與安全	勝一化工公司之產品分為： 醋酸酯類、醚醇酯類、電子級溶劑、福馬林、尿素膠、混合溶劑。本次僅針對Yong-An Plant I及Yong-An Plant II2024年度依產品別之產量實績數據執行確信程序。

Appendix 7 Contact Information

勝一化工股份有限公司
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