



**2024**

Sustainability Report

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# Compilation Instructions

The report was reviewed and approved at the 15th meeting of the 9th board of directors of the company on April 23, 2025.

This report is the Sustainability report of Zhejiang Juhua Co., Ltd. (hereinafter referred to as "Juhua Corporation", "the Company" or "We") for the year 2024. This report is an annual report that discloses the company's concepts, practices and performance in fulfilling environmental, social and governance responsibilities for the 15th year, aiming to comprehensively present Juhua Corporation's practices and performance in sustainable development to stakeholders.

## Reporting Period

The period of this report is from January 1, 2024 to December 31, 2024 (referred to as the "reporting period"). In order to increase the comparability of the report, some content may be appropriately traced or extended.

## Scope of Report

The scope of information and data disclosed in this report covers Juhua Corporation and its subsidiaries. The statistical scope of the data and information in this report is consistent with the scope of the company annual report in 2024.

## Title Description

For ease of expression, some company titles in the report are abbreviated, and the full name and abbreviation of the company refer to the following:

Company abbreviation	Full name of the company
Juhua Group	Juhua Group Co., Ltd
Sulfuric Acid Plant	Zhejiang Juhua Co., Ltd Sulfuric Acid Plant
Electrochemical Plant	Zhejiang Juhua Co., Ltd Electrochemical Plant
Juhua Chinlon Company	Quzhou Juhua Chinlon Co., Ltd.
Jusheng Fluorination Company	Zhejiang Jusheng Fluorochemical Co., Ltd
Jusheng Fluorine Chemicals Company	Zhejiang Jusheng Fluorine Chemicals Co., Ltd.
Jinju Chemicals Company	Zhejiang Jinju Chemicals Co., Ltd.
Quhua Fluorine Chemistry Company	Zhejiang Quhua Fluorine Chemistry Co., Ltd.
Jusu Chemicals Company	Zhejiang Quzhou Jusu Chemicals Co., Ltd.
Ningbo Juhua Chemical Company	Ningbo Juhua Chemical & Science Co., Ltd.
Technology Center Company	Zhejiang Juhua Technology Center Co., Ltd.
Fluorine New Chemical Company	Zhejiang Quzhou Fluorine New Chemical Co., Ltd.

Company abbreviation	Full name of the company
Lanxi Fluorine Chemicals Company	Zhejiang Lanxi Juhua Fluorine Chemicals Co., Ltd.
Tianjin Barrier Company	Tianjin Barrier Pack Co., Ltd.
Lianzhou Refrigerant Company	Zhejiang Quzhou Lianzhou Refrigerant Co., Ltd.
Feiyuan Chemical Company	Zibo Feiyuan Chemical Co., Ltd.
Feiyuan Advanced Material Company	Shandong Feiyuan Advanced Material Co.,Ltd
Chuangfu High-tech Company	Zhejiang Chuangfu High-tech New Materials Co., Ltd.
Global Fluorine Company	Global Fluorine Chemicals Co., Ltd.

## Information sources and reliability assurance

The information in this report is sourced from publicly available information, official documents, financial reports, internal management information systems, third-party monitoring and evaluation data, as well as data collected by relevant functional departments of Juhua Corporation. Juhua Corporation guarantees that there are no false records, misleading statements or significant omissions in the content of this report.

## Guide standards

- UN Sustainable Development Goals (SDGs)
- Global Reporting Initiative Standards (GRI Standards)
- Shanghai Stock Exchange Self-Regulatory Guidelines for Listed Companies No. 14--- Sustainability Report (Trial)
- China Academy of Social Sciences, Guidelines for Chinese Enterprises' Sustainable Development Reporting (CASS-ESG 6.0): General Framework
- State-owned Assets Supervision and Administration Commission (SASAC) Guidelines on High-standard Fulfillment of Social Responsibility by Central State-owned Enterprises in the New Era and Compilation Study of ESG Special Reports for Central SOE-controlled Listed Companies.

## Access

This report is published in both Chinese and English versions and can be found on the company's official website (<http://www.jhgf.com.cn>) and the Shanghai Stock Exchange website (<http://www.sse.com.cn>) Search and obtain. When there is ambiguity in understanding two texts, please refer to the Chinese version.

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# Message from the Chairman



“

Standing at a new starting point at the intersection of history, the global wave of sustainable development is reshaping the process of human civilization with unprecedented depth. As a responsible major country, China has clearly set the "Dual Carbon" target and continuously deepened the construction of its ESG policy system. State-owned Assets Supervision and Administration Commission Guidelines on High-standard Fulfillment of Social Responsibility by Central State-owned Enterprises in the New Era emphasize that enterprises need to fully integrate ESG concepts into strategic planning to achieve the coexistence and prosperity of economic benefits and social value. As a leading enterprise in China's fluorine chemical industry, Juhua Corporation has always held the concept of "the Greater Good of the Country" in mind, with ESG as its strategic axis. In serving the overall national situation, Juhua Corporation accurately coordinates its development, refines its corporate character in response to the challenges of the times, and fulfills its mission of sustainable development with a higher position, broader vision, and larger perspective.

”

## Building a solid ecological security barrier based on green transformation

Environmental responsibility is the foundation of sustainable development for enterprises. Juhua Corporation actively responds to the call for the construction of a "Beautiful China" and regards green and low-carbon as the core direction of industrial upgrading. We have reduced production energy consumption and pollution emissions through technological innovation, investigated and rectified potential safety hazards throughout the year, and significantly improved the level of safe production. Through technological innovation, we have reduced production energy consumption and pollution emissions, and identified and rectified safety hazards throughout the year, significantly improving our safety production level. The company has built a strategic layout of fourth generation refrigerants and high-end fluoropolymers with a global perspective, promoting the closed-loop of the industrial value chain through a full lifecycle carbon management technology system, and taking the lead in realizing the large-scale application of environmentally friendly fluorine materials. Based on the harmonious coexistence between humans and nature, Juhua Corporation not only needs to become a practitioner of green manufacturing, but also a maker of low-carbon technology standards and a participant in global climate governance.

## Building a harmonious development community based on social values

The ultimate value of an enterprise lies in creating shared benefits. Juhua Corporation has always internalized social responsibility as its organizational DNA, and used the modernization of its industrial chain to support the strategy of common prosperity. We are building a three in one empowerment system of "Talent--Industry--Region", cultivating new era industrial workers through innovative vocational education, and driving regional economic transformation and upgrading through technology spillover effects. The company's fluorine chemical product technology helps promote the implementation of the country's first financial standard targeted at the transformation of the chemical industry through deepening innovation empowerment. We deeply integrate into the rural revitalization strategy and explore a new model of urban-rural integration of "Ecological Industrialization and Industrial Ecologicalization". In the face of the global development gap, we take the initiative to participate in the "the Belt and Road" green production capacity cooperation, exporting smart solutions for Chinese-style sustainable development, and letting the dividends of technological progress span mountains and seas and benefit mankind.

## Taking governance efficiency as the guiding principle, driving long-term value creation

Excellent governance is the guarantee for stable and sustainable development of enterprises. Juhua Corporation aims to build a world-class enterprise, benchmarking international ESG standards and establishing a comprehensive ESG management system, incorporating sustainable development goals into the strategic decision-making core of the board of directors. Through the "JES Lean Management System", we have achieved a dual improvement in operational efficiency and resource utilization. At the same time, we strengthen risk prevention and control, extending ESG risk management to subsidiary companies and supply chain terminals to ensure compliant operations and transparent disclosure.

## Looking forward: Dealing with uncertainty with certainty

2025 is the year when the 14th Five Year Plan comes to an end, and it is also a key milestone for Juhua Corporation to become a global leader in fluorine industry. We will adhere to the strategy of "Strengthening the foundation and Seeking changes actively", drive industrial iteration through technological innovation, and respond to global challenges through open cooperation. We firmly believe that only by deeply embedding ESG concepts in strategy, culture, and daily operations can we open up new opportunities in changing situations.

The journey is approaching, and Juhua Corporation is willing to join hands with all sectors of society to forge ahead on the path of sustainable development with an unwavering spirit of climbing.

# About Juhua

## Corporate Profile

Juhua Corporation was established on June 17, 1998 and successfully listed on the Shanghai Stock Exchange on June 26 of the same year, with the stock code 600160.

In the past 20 years, the company has adhered to the corporate purpose of "Creating wealth and Serving society", closely followed the pace of domestic and international economic development, continuously innovated, and steadily developed. Juhua Corporation has transformed from a basic chemical industry enterprise to an innovative enterprise focusing on high-performance fluorine chlorine new materials. Juhua Corporation is a leading advanced manufacturing base for fluorine chemical and chlor alkali chemical comprehensive supporting industries in China.

The company has more than 100 sets of internationally advanced production facilities, and is in a leading position in the industry in terms of production technology, safety and environmental protection technology and supporting facilities, production and operation management level of the main products. The product line covers multiple fields such as functional materials, specialty polymers, new refrigerants, specialty chemicals, and basic chemicals.

Juhua Corporation actively promotes innovation driven development and has built an industry-leading research and development system. There are research and development centers established in Hangzhou and Quzhou respectively, with multiple high-level innovation and entrepreneurship platforms including national enterprise technology centers, national fluorine material engineering technology research centers, and academician (doctoral) workstations.

## Business Layout

As a leading enterprise in the field of domestic fluorine chemical and chlor alkali chemical new materials, Juhua Corporation's business scope covers the research and development, production, and sales of basic chemical, fluorine chemical, food packaging materials, and subsequent products. The company has a self-supporting system for essential industries such as chlor alkali chemical, sulfuric acid chemical, coal chemical, and basic fluorine chemical, and based on this, has formed a complete fluorine chemical industry chain including basic supporting raw materials, fluorine refrigerants, organic fluorine monomers, fluorine-containing polymers, fluorine-containing fine chemicals, etc., and has also entered the petrochemical industry.

### Fluorine chemical raw materials

Including hydrofluoric acid, chloride and other series. The company has the highest demand for hydrofluoric acid in the industry, with a supporting independent production capacity of nearly 250000 tons per year. Its technical level and industrial scale are at the forefront of the industry. As the key raw material of fluorochemical industry, chloride products, including dichloromethane, trichloromethane, trichloroethylene and tetrachloroethylene, are independently produced by the company, and all products are in the leading position in the industry, forming a complete supporting supply chain

### Refrigerant

The company is a global leader in refrigerants and is the only domestic manufacturer with a series of first to fourth generation fluorinated refrigerants, as well as new fluorinated refrigerants, hydrocarbon refrigerants, and a series of mixed refrigerants. In addition to having an absolute leading production and distribution of fluorine refrigerants, the company is also a leading manufacturer in terms of effective scale and variety of fourth generation fluorine refrigerants (HFOs) in China. At the same time, the company has electronic fluorinated liquid hydrogen fluoride ether D series products and perfluoropolyether JHT series products, as well as a production capacity of 35000 tons/year of hydrocarbon refrigerants.

### Fluoropolymer

The company has a complete range of fluoropolymer varieties, with TFE, HFP, VDF, PTFE, FEP, FKM, PVDF, and ETFE production capacity leading the industry. With the completion of the company's 10000 ton/year high-quality meltable fluoro resin and supporting projects, the first phase of the 500 ton/year perfluorosulfonic acid resin project, and the 10000 ton/year FEP expansion project for fluoropolymers, it will effectively enhance the company's competitive position in the fluoropolymer market and promote the high-end development of the fluorine chemical industry.

### Fluorinated fine chemicals

The company has a complete fluorine chemical industry chain and a complete range of fluoropolymer monomer products. With strong research and development capabilities, it continues to promote the industry towards high-end, refined, and specialized development. The electronic fluorinated liquid hydrogen fluoride ether D series products and perfluoropolyether JHT series products developed by the company provide excellent solutions for strategic emerging industries such as semiconductor production, big data centers, new energy vehicles, energy storage, and robot AI in thermal management, high-precision cleaning, and harsh environmental lubrication. With the completion of the acquisition of Feiyuan Chemical Company, the company's production capacity and variety of fluorine-containing fine chemicals have been rapidly increased.

### Chlor alkali chemical industry

The company's caustic soda products have the largest production capacity in Zhejiang Province and dominate within the effective economic sales radius. The production capacity of trichloroethylene, tetrachloroethylene, methane chloride, and VDC products is globally leading. The scale of VDC and PVDC industries has jumped to the top in the world, and the product structure is gradually expanding towards diversification, high-end, and terminal. The domestic market share ranks first, and the comprehensive competitiveness remains among the top in the country. The company's PVDC products have successively won the honorary titles of "China Manufacturing Industry Single Champion Product" and "Zhejiang Manufacturing Boutique".

### Petrochemical Materials

The company has over 20 years of experience in producing caprolactam, and through the introduction, digestion, absorption, and innovation of technology, its comprehensive technical level is in a leading position in the industry, and it has obtained the "Made in Zhejiang" brand certification. Caprolactam products have fully entered the high-speed spinning market, and their product quality has been recognized by high-end customers such as BASF and DSM.

### Coal chemical industry

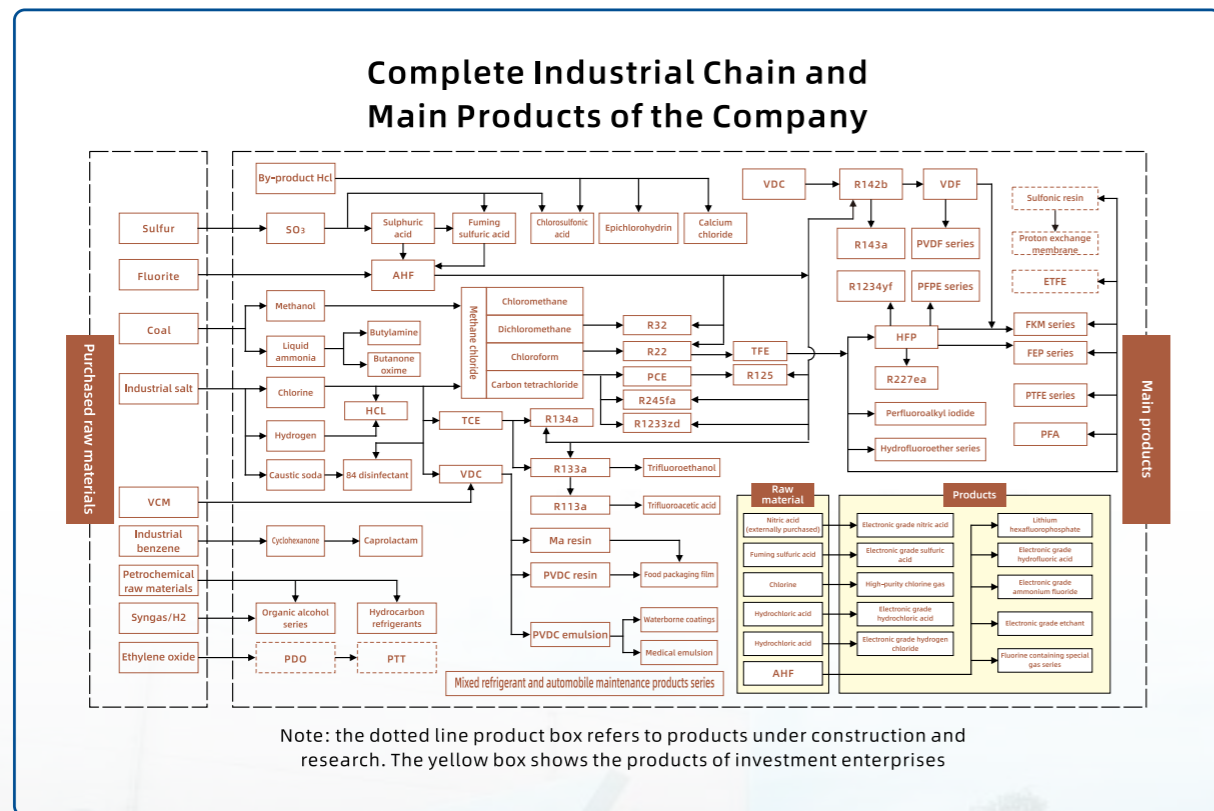
The company's coal chemical products, such as liquid ammonia and methanol, are essential raw materials to support the development of the fluorine chemical industry. The company utilizes advanced clean coal gasification technology to transform traditional coal chemical industry, creating an industrial chain of "coal methanol, synthetic ammonia", gradually transforming into a supplier of "fluorine chemical raw materials industrial gases" and an organic wastewater treatment provider.

### Sulfuric acid chemical industry

The company's main products are basic chemical raw materials, mainly sulfuric acid, chlorosulfonic acid, and intermediate sulfur dioxide (SO<sub>2</sub>). Among them, sulfuric acid is the key basic raw material for the company's fluorine chemical production, intermediate SO<sub>2</sub> is used for the production of caprolactam, and chlorosulfonic acid can digest the company's by-product hydrogen chloride (HCl), achieving resource recycling. The product mainly serves the internal industrial chain supporting of the company, forming significant synergies

## Main products

The company offers a diverse range of products with a wide range of applications. At present, the main products include fluorine chemical raw materials, refrigerants, fluorine-containing polymer materials, fluorine-containing fine chemicals, food packaging materials, petrochemical materials, basic chemicals and other series. These products are widely used in various industrial sectors and strategic emerging industries such as national defense, aerospace, electronic information, environmental protection, new energy, electrical, electrical, chemical, mechanical, instrumentation, construction, textile, metal surface treatment, pharmaceuticals, medical, food, metallurgical smelting, etc. With the continuous advancement of technology and the continuous promotion of consumer upgrading, the application scope of the company's products is still expanding and deepening. The company's fluorine chemical materials have become an indispensable and irreplaceable supporting material for strategic emerging industries due to their unique and excellent performance.



## Corporate Culture Concept



## Lists of Participating Associations and Industry Organizations

- China Quality Association
- China Chlor Alkali Industry Association
- China Chemical Environmental Protection Association—Fluorine Chemical Industry Professional Committee
- Zhejiang Fluorochemical Society
- Shanghai Chemical (China) Council
- China Chemical Enterprise Management Association
- Chinese Association of Refrigeration
- Zhejiang Quality Association
- Zhejiang Refrigeration Society



## Awards and Honors Received in 2024



- Enter the new CSI A500 Index
- Selected for the Shanghai and Shenzhen 300 Index Sample List
- Selected for the release of the "2024 ESG Pioneer 20 List of Listed Companies in the Chemical and Petrochemical Industry" at the Tianjin Wudao Financial Forum
- Subsidiary Ningbo Juhua Company settles in the National Model Cultivation Library
- Ranked 345th on the 2023 China Enterprise Credit 500 list and 322nd on the 2023 China Listed Company Credit 500 list
- Selected for the Top 30 Best Internal Control Companies of Zhejiang Listed Companies in 2024 (awarded for eight consecutive years)
- Subsidiary Quhua Fluorination Company's 5G factory has been selected for the "2024 5G Factory List" released by the Ministry of Industry and Information Technology
- Subsidiary Feiyuan Chemical Company has been selected as one of the "Top Wild Goose" enterprises in Shandong Province
- Received the highest A-level evaluation of information disclosure of Shanghai listed companies on the Shanghai Stock Exchange in 2023-2024 (for 10 consecutive years)
- Won the "Golden Bull Award -2023 Golden Trust Award" at the 26th China Securities Journal Listed Company Awards
- Subsidiary Quhua Fluorination Company Passes the Review of the Fifth Batch of Manufacturing Single Champion Enterprises by the Ministry of Industry and Information Technology
- Subsidiary company Jusheng Fluorination Company selected for the 2023 Zhejiang Province Intelligent Future Factory List
- Won the "Gold Quality · Excellent Party Building Award" at the 2024 High Quality Development Conference of Listed Companies
- Ranked among the top 10 in the global fluorine chemical industry in 2024
- Subsidiary companies Lianzhou Refrigeration Company and Jusheng Fluorination Company have been selected as the first batch of Zhejiang Province Manufacturing Industry Single Champion Cultivation Enterprises in 2024 by the Zhejiang Provincial Department of Economy and Information Technology
- Subsidiary company Ningbo Juhua has been selected as one of the second batch of "Big, Excellent and Strong" manufacturing enterprises cultivated by the Ningbo Municipal Bureau of Economy and Information Technology
- Ranked 12th on China's Top 100 Fine Chemicals List
- Awarded the title of "Leading Goose" Enterprise in the Provincial and Ministerial Enterprise and Public Welfare Community
- Subsidiary company Jusu Chemical Company selected for the 2023 Zhejiang Province Digital Workshop List
- 

# Sustainable Development Governance

## ESG Governance

Juhua Corporation upholds a firm commitment to sustainable development and integrates ESG concepts into the company's development strategy and daily operations at a comprehensive and deep level. The company has established a management system with clear responsibilities and efficient operation, and has built a three-level ESG management structure (Decision-making - Management - Execution) including the board of directors, management team, and ESG working group. It fully leverages the professional advantages of each level, combines top-down strategic deployment with bottom-up feedback and improvement, and constructs an efficient and collaborative management loop. This comprehensively, systematically, and effectively promotes the implementation of ESG strategies, laying a solid foundation for the sustainable development of the enterprise.

Positioning	Governance structure	Responsibility
ESG decision-making bodies	Board of directors	Deliberation and decision-making on major ESG issues Suggestions and plans for ESG related work ESG Risk Management and Control
ESG management and implementation institutions	The Management	Research the ESG strategic direction of the company Research and approve significant ESG issues
Assist the management in implementing ESG plans	ESG Working Group	Responsible for daily ESG execution and management work Establish and improve ESG institutional system and indicator system Guide the implementation of ESG work in various subsidiary companies and departments

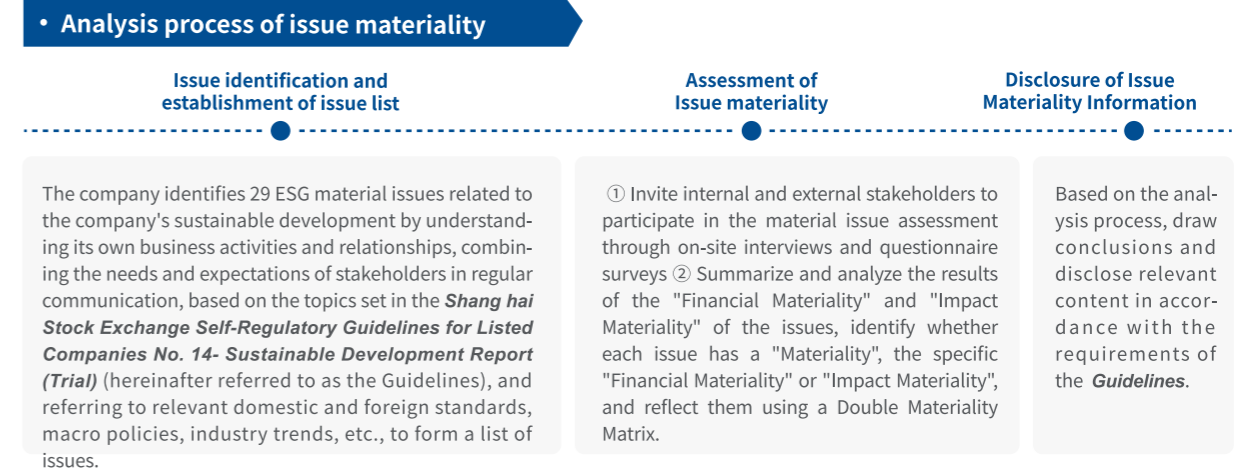
Juhua Corporation regards sustainable development as the core of its corporate strategy, actively practicing the new development concept of national innovation, coordination, green, openness, and sharing, and is committed to creating comprehensive value in the economic, social, and environmental fields. To promote sustainable and long-term development of the enterprise, the company has set safety and environmental protection goals. In terms of safety, with the vision of becoming a respected enterprise, we aim to prevent fatal accidents and strive for zero serious injuries. In terms of environmental protection, we strive to avoid environmental pollution accidents, zero penalties, and zero exceedances, actively create a waste free group, and build a benchmark unit for environmental protection in the industry.

To promote sustainable development management and ensure the effective implementation of ESG strategies, Juhua Corporation has linked the company's ESG construction, information disclosure, and sustainable development goals with the executive compensation in the form of performance responsibility agreements, and regularly assesses and evaluates them to provide strong guarantees for the sustainable development of the enterprise.

In 2024, the company actively participated in various work carried out by chemical industry associations and organizations in the ESG field. Participated in the 7th Green Development Conference of the Petroleum and Chemical Industry organized by the China Petroleum and Chemical Industry Federation, and was invited to release the 2023 Industry Social Responsibility Report. Participate in the 2024 China Chemical Environmental Protection Association Fluorine and Chlorine Industry Green and Low Carbon Development Forum, attend standard discussion meetings such as "Quantitative Methods and Requirements for Greenhouse Gas Product Carbon Footprints Fluorine Chemical Products", "Fluorine Chemical By product Calcium Fluoride", and "Fluorine Chemical By product Hydrochloric Acid", and provide suggestions and recommendations for the industry's green and low-carbon development and standardization construction.

## Double Materiality Analysis

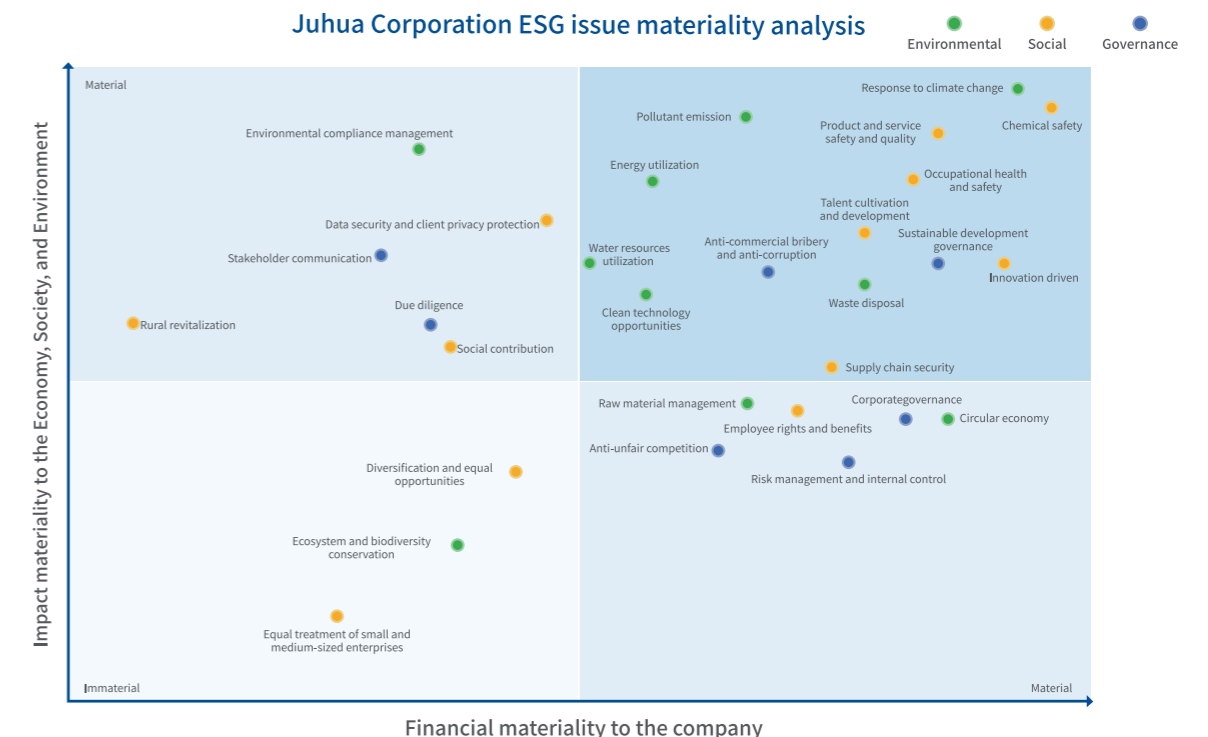
Juhua Corporation has systematically carried out the identification and evaluation of material issues based on the process of "Issue identification--Establishment of issue list--Material issue assessment--material issue information disclosure", in order to clarify the material issues related to the company's sustainable development work and identify the key points of sustainable development management.



### Conclusion on the issue materiality analysis

Based on the identified list of issues, Juhua Corporation invites all stakeholders to evaluate the issue materiality from both the perspectives of impact and financial materiality. The evaluation results are presented in a matrix.

A total of 29 material issues were selected, of which 14 issues have double materiality, 6 issues only have financial materiality, while 6 issues only have impact materiality and 3 topics have neither financial materiality nor impact materiality.



Note: Technology ethics is a specific subject disclosure issue and the company is not currently involved.



## Due diligence, Stakeholder Communication

Juhua Corporation attaches great importance to the participation of stakeholders in sustainable development. Based on own industry characteristics and business situation, the company identifies and determines six key stakeholders: government/regulatory agencies, shareholders and investors, communities and society, partners and suppliers, clients, and employees.

The company maintains a regular communication frequency with various stakeholders, conducting due diligence through stakeholder interviews, research, communication, and other means on a regular or irregular basis, fully understanding the demands and opinions of stakeholders on the issues of concern, and responding to their needs through diversified channels to create sustainable value for stakeholders.

Stakeholders	Attention matters	Communication channels	Ommunication frequency
 <b>Government regulatory agencies</b>	Compliant Operation	Stock Exchange Meeting	Regular/irregular
	Lawful Tax Payment	Government Work Report	
	Industry Leading	Government Visit/ Supervision	
	Environmental Protection	Platform Disclosure	
	Risk Management		
 <b>Shareholders and investors</b>	Financial Performance	Platform Disclosure	Regular/irregular
	Enterprise risk control	Investor Reception	
	Governance Improving	Conference Call	
	Non-financial information disclosure	The General Meeting of shareholders	
	Investor feedback	Work Conference	
 <b>Community and Society</b>	Social impact	Visiting and reaching	Occasionally
	Environmental impact	Environmental information disclosure	
	Harmonious community	Official account article release	
		Public benefit activities	
 <b>Partners and suppliers</b>	Exchanges and cooperation	On-site visit	Regular/irregular
	Risk ethics	Supplier Conference	
	Supply Chain Management	Procurement platform	
 <b>Client</b>	Product Quality	Customer Complaint Platform	Regular/irregular
	Good Service	Satisfaction Survey	
	R&D Innovation	Professional Training	
		After-sale Service	
		Return Visit	
 <b>Employee</b>	Occupational Health and Safety	Employee Satisfaction Survey	Regular/irregular
	Talent Cultivation and Retention	Internal and External Training	
	Employee Rights and Benefits	Worker Congress	
	Diversity and Equality	Company Union	

## Information Disclosure

Juhua Corporation has formulated management measures such as *the ESG Information Disclosure Management Measures* and *the Information Disclosure Management Measures*, strictly implementing information disclosure work in accordance with relevant laws, regulations, rules and obligations of the China Securities Regulatory Commission and the Shanghai Stock Exchange, as well as the company's articles of association and management system, to standardize the authenticity, accuracy, completeness, and timeliness of information disclosure such as financial reports, annual reports, and ESG reports.

The company innovates the content and form of voluntary information disclosure, enhances the content and quality of non-financial key information in regular reports, strengthens the pertinence and effectiveness of temporary announcements, and helps investors accurately understand the company's business, value, and future development trends. The company's information disclosure has been awarded the highest rating of A-level by the Shanghai Stock Exchange for 10 consecutive years.

During the reporting period

**43** announcements prepared and disclosed

**28** online documents

In terms of investor communication, the company strengthens communication with investors through diversified communication channels such as information disclosure and performance briefing, actively conveys the company's investment value, and answers investors' concerns. In the process of communicating with investors, we adhere to fair treatment of every investor, strictly prohibit asymmetric communication, and effectively safeguard the fair access to information rights of all investors.

During the reporting period

**3** performance briefing meetings organized

**3** investor reception days

**242** on-site visits from investors

investor questions answered through the Shanghai Stock Exchange E-interactive platform

**99**

communicated with a large number of investors through online exchange activities organized by securities firms for

**60** sessions



Investor reception day Event



## Governance Chapter

### Strengthening foundation through normative standards, Building trust through transparent ways

Good corporate governance is the cornerstone of a company's steady development and a key driver for achieving sustainable development goals. Juhua Corporation continuously improves its board structure to ensure the scientificity and transparency of decision-making, continuously strengthens its risk management mechanism, comprehensively enhances its ability to identify and respond to various risks, strengthens internal and external audits and information disclosure, further enhances operational transparency, and strengthens the trust of stakeholders. We are committed to continuously improving our compliance operation level and laying a solid foundation for the long-term stable development of the enterprise. In the future, the company will continue to deepen governance reforms, promote the deep integration of governance capabilities and sustainable development goals, and provide solid guarantees for creating long-term value.

### Important achievements in 2024

Operating revenue of 24,462.37 million yuan

Total tax payment: 511.97 million yuan

Belonging to cash dividends of 297.00 million yuan from the previous year

Net profit attributable to shareholders of the listed company in the previous year was 943.51 million yuan

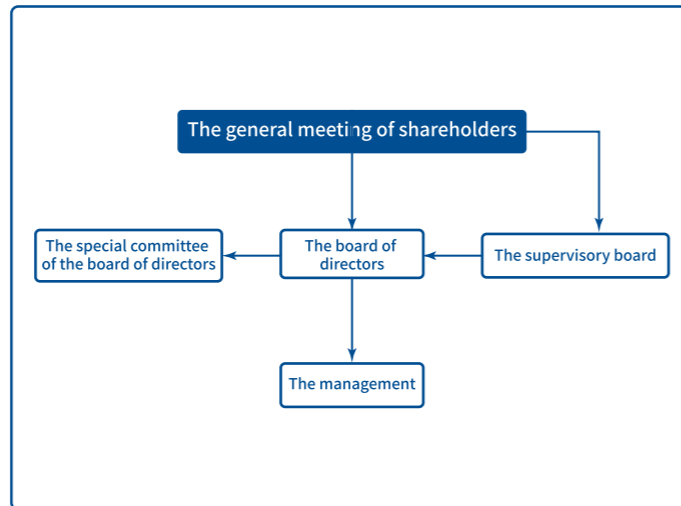
The SDG goals addressed in this chapter



# Improving Corporate Governance

## Corporate Governance Structure

The company strictly adheres to the requirements of laws, regulations, and normative documents such as the Company Law of the People's Republic of China, the Security Law of the People's Republic of China, and the Code of Corporate Governance for Listed Companies, and has established a sound and effective corporate governance structure composed of the general meeting of shareholders, the board of directors, the supervisory board, and the special committee of the board of directors, effectively ensuring the fairness and scientificity of corporate governance decisions. The general meeting of shareholders, board of directors, supervisory board, and management of the company strictly comply with relevant laws and regulations, the Company's Articles of Association, relevant rules of procedure, work regulations, etc., and perform their duties in a standardized and effective manner.



### The general meeting of shareholders

The General Meeting of Shareholders: It is the governing body of the company, which decides on the company's business policies and investment plans. According to relevant regulations such as the *Company Law* and the *Articles of Association*, the company has formulated the *Rules of Procedure for the General Meeting of Shareholders* and strictly convenes and holds the general meeting of shareholders in accordance with laws, regulations, and rules to ensure that the general meeting of shareholders exercise their powers in accordance with the law. During the reporting period, the company held 2 general meeting of shareholders and reviewed 13 proposals.



The general meeting of shareholders

### The Board of Directors

It is a permanent institution for the company's business decision-making, responsible to the general meeting of shareholders, and exercises the powers granted by laws and regulations, the *Articles of Association*, and the general meeting of shareholders. The board of directors has four professional committees, namely the Strategy Committee, Audit Committee, Salary and Assessment Committee, and Nomination Committee, to review special matters. Each committee member is provided with sufficient resources to fulfill their duties and seek independent professional advice in appropriate circumstances. According to relevant regulations, the company has formulated the *Rules of Procedure for the Board of Directors* to encourage directors and the board of directors to effectively fulfill their duties and improve the standardized operation and scientific decision-making level of the board of directors. During the reporting period, the company held 5 board meetings and reviewed 36 proposals.

During the reporting period

Board Meetings Held  
**5**

Proposals Reviewed  
**36**

### The Board of Supervisors

Responsible to all shareholders, supervising the performance of the company's board of directors, directors, senior management, as well as financial, internal control, and information disclosure matters, in order to protect the legitimate rights and interests of the company, shareholders, employees, and other stakeholders. According to relevant regulations, the company has formulated the *Rules of Procedure for the Supervisory Board* to encourage supervisors and the board of supervisors to effectively fulfill their supervisory responsibilities and improve the corporate governance structure. During the reporting period, the company held 4 supervisory board meetings and reviewed 10 proposals.

During the reporting period

Supervisory Board Meetings Held  
**4**

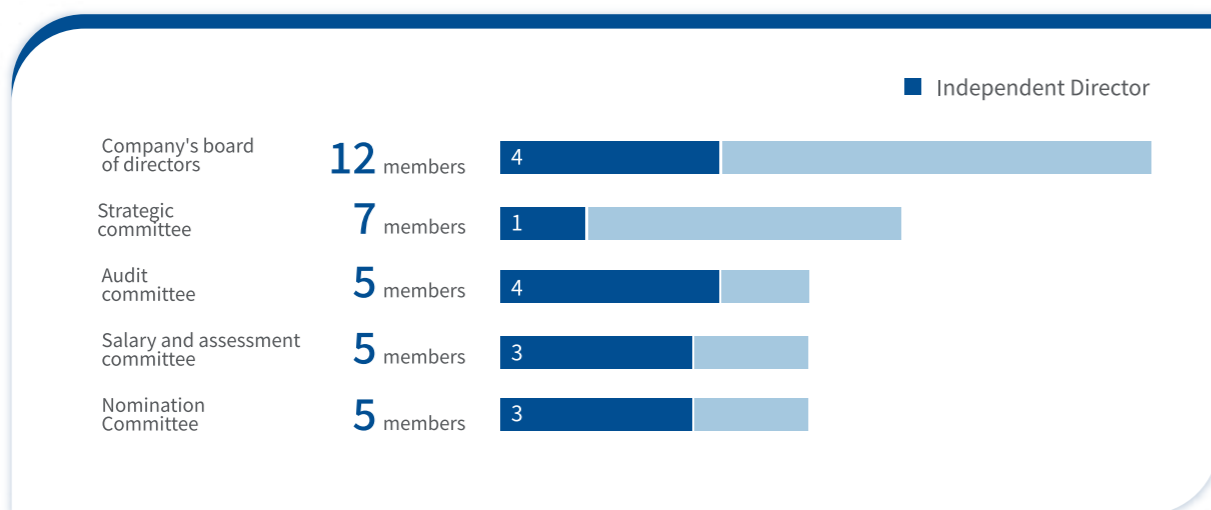
Proposals Reviewed  
**10**



Board of directors and board of supervisors meetings

## Independence and Diversity of the Board of Directors

The company formulates and regularly updates the *Independent Director Work System*, continuously improves the specialized committee system, and enhances the independence and professionalism of the board of directors. Independent directors have a duty of integrity and diligence towards the company and all shareholders, and should conscientiously fulfill their duties in accordance with relevant laws, regulations, and the *Articles of Association*. They should play a role in participating in decision-making, supervising and balancing, and professional consulting in the board of directors, safeguard the overall interests of the company, and protect the legitimate rights and interests of small and medium-sized shareholders.



The company strictly implements the diversification policy of the board of directors in accordance with the Articles of Association and other relevant regulations. All appointments to the board of directors are based on talent and are committed to selecting the best candidates based on diversity principles, including considerations of gender, race, ethnicity, region, culture, and experience. By optimizing the diversified allocation of board members in terms of professional skills, industry experience, and decision-making perspectives, we aim to enhance the efficiency of board decision-making. The current 12 directors of the company have rich experience in fields such as chemistry, business management, tax accounting, finance, and law, providing multidimensional perspectives and professional support for the company's strategic decision-making.

## The Effectiveness of the Board of Directors

The company has established a comprehensive board effectiveness evaluation mechanism to ensure that the board makes scientific decisions and operates efficiently. The company conducts regular evaluations of the effectiveness of the board of directors, independent directors, and audit committee to ensure that the board makes scientific decisions and operates efficiently.

The board of directors of the company regularly prepares annual work reports, which comprehensively analyze the annual operating results, industry situation, core competitiveness, research and development innovation, business plans, performance, and other contents, and submit them to the shareholders' meeting for review. The independent directors of the company shall regularly submit independence self-inspection reports and performance reports to the board of directors and shareholders' meeting, and provide detailed reports on independence, performance, key issues of concern, etc. The company's audit committee regularly submits performance reports to the board of directors and reports on the accounting firm's performance of supervisory duties.

The board of directors, independent directors, and audit committee of the company strictly comply with relevant laws and regulations, the company's articles of association, relevant rules of procedure, work regulations, etc., and perform their duties in a standardized and effective manner. During the reporting period, all the submitted reports were reviewed and approved.

## Performance and pay

In order to continuously promote the sustainable development of the company, the company has established a performance-based salary mechanism, and the Remuneration Committee is responsible for establishing compensation policies and structures that meet the needs of the company's business development, ensuring that the pay levels of the company's directors and senior management are appropriate.

The company reasonably controls the salary risks of senior management, establishes a mechanism for salary recovery and performance deduction, and clarifies disciplinary measures for violations in relevant systems to ensure equal rights and responsibilities and compatible incentives and constraints. Simultaneously linking the company's ESG construction, sustainable development goals, and executive compensation to promote the improvement of the company's sustainable development management level.

### Disclosure of executive compensation

Full name	Position	Year end shareholding	Total pre tax compensation received from the company during the reporting period (in 10000 yuan)
Liyang Zhou	Chairman	19,500	0
Jun Li	Vice Chairman	0	0
Jihong Tong	Director	0	0
Shunliang Tang	Director	0	0
Jinming Han	Director and General Manager	0	94.89
Haijun Zhao	Director	0	0
Yunhua Liu	Secretary of the Board of Directors	58,500	79.29
Xiaoming Wang	Director and Financial Director	21,320	64
Zixue Zhang	Independent director	0	12
Li Liu	Independent director	0	12
Yutao Wang	Independent director	0	12
Guihua Lu	Independent director	0	12
Wujiang Chen	Supervisory board chairman	0	0
Gang Ren	Supervisor	0	0
Liyan Gong	Supervisor	0	54.83
Xiaowen Hu	Vice general manager	28,600	69.56
Jianxun Han	Vice general manager	2,000	66.49
Jilin Zheng	Vice general manager	0	76.98
Qiang Zhou	Vice general manager	0	82.3
Jiangyong Hong	Vice general manager	0	72.8

# Risk Management and Internal Control

## Internal Control

### • Compliance management

Juhua Corporation has rooted the spirit of the rule of law in every aspect of its development, guiding all employees to establish the concept of "Respecting the Law Abiding by the Law, and Using the Law", ensuring that all aspects of enterprise decision-making, operation, production, management, and other processes are legal and compliant. The company has formulated and issued the **Regulations on Compliance Obligations and Compliance Evaluation Management** and Compliance Management Measures, standardized business operation processes, established an Internal Audit and Control Department and Control Department to undertake daily compliance management work, and sorted out and reviewed existing rules and regulations for compliance. In 2024, the company will fully implement compliance management and supervise the signing of compliance commitment letters for all employees. At the same time, a comprehensive compliance management tool has been established, including a compliance risk list, a key process control list, compliance guidelines for key business areas, and a list of key job responsibilities, providing systematic support for the effective operation of the compliance management system.



Compliance training

### • Internal controls

A sound internal control system is the cornerstone for ensuring the safety of company assets and sustainable and healthy development. We ensure the standardization and reliability of the company's operations by establishing a sound internal control system. The company's audit and control department is responsible for establishing and improving the company's internal control system, risk control management system, and systemic risk (financial, legal, operational risk, etc.) system to ensure the healthy, stable, and efficient operation of the company.

The company has established a unified internal control system structure based on the **Basic Norms for Enterprise Internal Control** and its supporting guidelines, as well as other regulatory requirements, combined with the actual situation of the company. The macro structure is built up from top to bottom, the institutional process is connected from top to bottom, and the specific institutional structure is optimized from top to bottom. It includes 23 primary modules and 18 secondary modules such as corporate governance, development strategy, financial activities, asset management, sales business, and comprehensive budgeting. The company level includes more than 220 internal control system systems, and each subsidiary strictly follows the requirements of laws, regulations, and headquarters system to complete the construction of localized system according to unified standards.


The company conducts an annual self-evaluation of its internal control system for its major business units, issuing self-evaluation plans and reports. Any deficiencies identified during the evaluation are identified and corrective measures and departments are identified, and tracked and verified to ensure the effective operation of the internal control system.


Juhua Corporation has always adhered to scientific management, adapted to industrial and market trends, continuously optimized its internal control system, and enhanced its risk resistance and governance capabilities. With continuous efforts in high-quality development and modernization of enterprise management, as well as excellent performance in internal control system construction, the company has been selected as one of the top 30 best internal control companies in Zhejiang for the year 2024. This is the eighth consecutive year that the company has received this honor.


### • Internal auditing


Juhua Corporation has established a systematic and multidimensional audit work system, achieving comprehensive risk management and control through a combination of internal and external factors and a balanced approach to both aspects. The company's audit adopts a combination model of "Special Audit + Internal Audit", conducting regular audits on core areas such as fund security, procurement compliance, investment efficiency, and international performance, forming an audit loop covering the entire business process of "Investment-Procurement-Production-Sales". In addition, the company conducts risk identification work every year, identifies risks throughout the entire process, and formulates corresponding response measures for each risk link. Clear and effective management of various risks that may affect the business.

#### During the reporting period, the company carried out key audit work, including

- 

▶ A key inspection was conducted on procurement activities, and a special audit was conducted on the internal control, process design, system implementation, and contract performance of subsidiary companies using direct contracting and competitive negotiation procurement methods through open recruitment of accounting firms, and an audit report was issued.
- 

▶ According to the resolution of the company's board of directors, in 2024, the audit and control department conducted an internal inspection of the forward foreign exchange settlement situation, verified whether the company's forward foreign exchange settlement met the requirements of the relevant resolutions of the board of directors, and submitted an inspection report to the board of directors.
- 

▶ According to the **Management Measures for Post evaluation of Equity Investment**, an equity investment post evaluation was conducted on the acquired Feiyuan Chemical Company through public recruitment of accounting firms, and the evaluation result was "Successful Investment"
- 

▶ According to regulatory requirements and the company's **Emergency Management Measures for Deposit Risks of Juhua Corporation in Group Finance Co., Ltd.**, the company conducts two regular deposit risk assessments of Juhua Group Finance Co., Ltd. every year, and submits the assessment report to the board of directors for review.

## Risk Management

### • ESG risk management

Juhua Corporation has incorporated the identification and control of ESG risks into its risk management system, ensuring effective monitoring and response to ESG related risks. The board of directors of the company, as the highest decision-making body for ESG management, is responsible for reviewing major ESG strategies and risk management, supervising the management's design, implementation, and monitoring of ESG risk management and internal monitoring systems. Regularly review key ESG risk factors such as safety production, changes in industrial policies, and technological iterations to ensure effective risk response. Continuously promoting the deep integration of ESG control with corporate governance and compliance management, providing institutional guarantees for sustainable development.

### • Tax risk management

In order to strengthen tax management, standardize tax related businesses, Juhua Corporation has formulated a tax management system, clarified departmental responsibilities and tax compliance processes, and ensured that all taxpayers pay various taxes and fees legally and compliantly. The finance department is responsible for overall tax management and major decisions, supervising and coordinating tax related matters of subsidiary companies, coordinating internal tax management and external tax verification work, and supervising and preventing tax risk management. The company integrates tax management into business decision-making and daily operations to ensure that business operations comply with commercial principles, and uses professional tax management to safeguard the stable development of the enterprise, demonstrating the responsibility of paying taxes in accordance with the law and operating in compliance.

In order to optimize the company's tax management work and strengthen risk awareness, the finance department of the company has established a normalized risk identification and assessment mechanism. Pay close attention to updates and changes in tax policies, conduct comprehensive tax risk assessments regularly, and constantly monitor special tax treatment matters, such as high-tech enterprises, additional deductions for research and development expenses, and asset restructuring, and supervise and control them. Thoroughly investigate potential tax risk points in business processes and implement strict supervision and control over these risk points. At the same time, it is required to regularly update the policies and regulations for corporate tax processing, and continuously improve the processing procedures for tax related accounting affairs.

#### Profit distribution of the company from 2021 to 2023

Dividend year	Dividend payout per 10 shares (yuan)	Number of shares converted per 10 shares (shares)	The amount of cash dividends (in 10000 yuan) A	Net profit attributable to shareholders of the listed company (consolidated statement, RMB 10000) B	Dividend ratio (%) 100A/B
2021	1.3	0	35,092.80	110,909.33	31.64
2022	2.7	0	72,893.14	238,073.26	30.62
2023	1.1	0	29,697.21	94,350.53	31.48
amount to			137,683.15	443,333.12	31.06

#### Total amount of taxes and fees paid by the company from 2022 to 2024

Year	Total tax and fee amount (10000 yuan)
2022	64,852.08
2023	79,698.88
2024	51,196.64
Cumulative	195,747.60

## Anti-Commercial Bribery and Anti-Corruption

### • Policy system

The company strictly complies with anti-corruption and anti-bribery related laws and regulations such as the Anti-Unfair Competition Law of the People's Republic of China, the Criminal Law of the People's Republic of China, and the Interim Provisions on Prohibiting Commercial Bribery. The company has formulated a series of rules and regulations, including the Employee Reward and Punishment Management Measures, the Anti-Fraud and Reporting Complaint Management Measures, the Internal Control Evaluation Management Measures, the Internal Audit Management Measures, and the Customer and Credit Management Measures. Through internal control and risk management measures, the company standardizes and controls the integrity behavior of employees and suppliers, ensuring legal and compliant operations.

The company has established an audit and control department responsible for evaluating and controlling the company's integrity risks, as well as providing integrity awareness training for all departments and employees. Each department shall assist the Audit and Control Department in conducting regular self-inspections of their own integrity issues and formulating corrective and preventive measures.

The company strictly adheres to the regulations and commitments of clean practice and anti-corruption, and continuously strengthens the construction of a culture of integrity. Employees of the company are not allowed to engage in or accept corruption, bribery, fraud, money laundering, and other behaviors in any region for any reason or in any form. At the same time, all suppliers, contractors, and service providers are required to comply with the above regulations and sign a **Integrity Commitment Letter** with all employees and suppliers, firmly rejecting the occurrence of commercial bribery

### • Supervision and audits of ethical standards

In terms of risk assessment, the company conducts fraud risk assessments for key business areas and key positions, and conducts special audits on each subsidiary company at least once every three years to effectively identify management loopholes, strengthen risk prevention and control capabilities, and provide strong guarantees for the healthy development of the enterprise.

The company has formulated the **Anti Fraud and Reporting Complaint Management Measures**, encouraging employees, suppliers, and service providers to actively report commercial bribery, corruption, and other non compliant behaviors through formal channels such as complaint reporting hotlines. Promise to strictly keep confidential the information of the informant and reward employees who have made significant contributions in the reporting work. The company adopts a zero tolerance attitude towards any threats or retaliatory actions. Depending on the severity of the situation, relevant responsible persons will be disciplined, dismissed, or transferred to judicial authorities for legal responsibility, in order to maintain the fairness of the reporting mechanism and the legitimate rights and interests of employees

The company's production and operation department has established a procurement supervision and management office, which is dedicated to strengthening the supervision of market transactions, timely discovering and investigating non-compliant procurement behaviors. During the reporting period, the company focused on risk assessment and control of key procurement business processes, and conducted specialized audits of high-risk areas by hiring third-party organizations. Through open recruitment, an accounting firm was hired to conduct a special audit on the internal control system and process design, system implementation, and contract performance of 12 subsidiary companies that adopt direct contracting and competitive negotiation procurement methods. The audit report stated that after the audit, 9 companies have formulated internal procurement systems in accordance with regulations and implemented them in actual procurement

In addition, the Procurement Supervision Office establishes a unified procurement platform to record the credit status and business behavior of market entities, and uses information technology to strengthen monitoring and analysis of market transactions to prevent fraudulent behavior. For non-compliant market entities, they will be blacklisted as suppliers and transactions with them will be suspended.

#### During the reporting period

The company did not engage in any commercial bribery or corruption incidents.

• Anti corruption and bribery construction

The company continues to carry out the construction of a clean culture, guiding employees to identify with and practice a clean culture, and promoting the relevant achievements of the company's clean construction to internal and external stakeholders, calling on partners to fulfill their clean commitments effectively.

We will promote the construction of a culture of integrity in multiple dimensions and comprehensively build a solid defense line against corruption. Strengthen the deployment of party conduct and clean governance construction through regular special meetings and hierarchical implementation of responsibility mechanisms. Conduct anti-corruption education and ethical standards for employees regularly through party committee meetings, branch activities, and other means, and deepen warning education through various online and offline forms. Focus on key nodes to strengthen supervision and inspection, implement specialized integrity education for key personnel, and effectively enhance the awareness of integrity and self-discipline among cadres and employees through integrity talks, commitment and practice, and legal and disciplinary research, creating a clean and upright corporate atmosphere.

During the reporting period



The proportion of directors, management, and employees receiving anti-corruption and integrity training was **100%**.



Corporate party conduct and clean governance construction activities

For suppliers, Juhua Corporation has established a supplier anti-corruption training and communication mechanism to strengthen the construction of supplier anti-corruption capabilities. Require all suppliers to develop anti bribery and anti-corruption policies, specifying prohibited behaviors and punishment measures. At the same time, it is required that all suppliers regularly conduct employee professional ethics training and target all employees for training.

# Anti-Unfair Competition

Juhua Corporation conducts business activities based on the principles of voluntary participation, equality, fairness, and integrity, and firmly opposes unfair competition. The company strictly abides by relevant laws and regulations such as the *Anti-Monopoly Law of the People's Republic of China* and the *Anti-Unfair Competition Law of the People's Republic of China*, actively guides employees to regulate business behavior, strengthens market supervision and compliance review, ensures fairness and transparency in business operations, and jointly creates a fair, just, and orderly business environment.

Antitrust and fair competition training

During the reporting period, the company conducted a learning activity on the *Anti-Monopoly Law* to strengthen employees' legal awareness and effectively prevent legal risks. Through online self-study, special lectures, and case analysis, the learning activities provide a detailed analysis of the basic principles, core content, and related risk points of the *Anti-Monopoly Law*, comprehensively enhancing the anti-monopoly compliance management level of managers at all levels. At the same time, the company has also improved its internal anti-monopoly compliance system based on its own business characteristics, established a sound risk warning mechanism, strengthened compliance training for key personnel, and ensured strict compliance with laws and regulations in daily business activities.

Intellectual property protection

The company is responsible for the application, protection, usage, licensing, anti-infringement, anti-theft, and anti-unfair competition of intellectual property rights by the Production and Operation Department, Marketing Department, and Investment Development and Construction Department. The company strictly prohibits any infringement such as counterfeiting and piracy, and pays reasonable consideration for the property rights obtained or used. The company strictly abides by relevant rules and regulations regarding the acquisition, sale, and use of property rights. The company takes legal responsibility for any discovered infringement and signs relevant legal agreements for authorizing third-party use.

The company continues to promote the certification of its intellectual property system. During the reporting period, Quhua Fluorination Company, Jusu Chemical Company, Jusheng Fluorination Company, Technology Center Company, and Ningbo Juhua Company passed the GB/T29490-2013 intellectual property management system certification.

DURING THE REPORTING PERIOD

The company did not experience any lawsuits or major administrative penalties resulting from unfair competition practices.

• ANTITRUST AND FAIR COMPETITION RISK CONTROL

The company strictly monitors whether the criteria for declaring concentration of business operators are triggered in investment projects. For investment projects that meet the declaration standards, the company actively organizes materials and cooperates with regulatory authorities to complete the declaration. During the review period, the company standardizes investment behavior, prevents unauthorized and concentrated violations, ensures the completion of anti-monopoly reviews, effectively prevents legal risks, and guarantees the compliance of investment promotion.



# Environment Chapter

## Circular Integration, Green Driven

Juhua Corporation integrates environmental protection into its corporate DNA, with "Fluorine-containing Greenhouse Gas Control" as the core focus. The concept of green development is integrated into the entire production and operation process of the company, and the digital transformation is used to promote the improvement of management capabilities and governance levels. A digital environmental monitoring network is constructed, and pollutant emission limits are stricter than national standards. The company continuously promotes the reduction of waste resources and broaden the channels for comprehensive utilization of solid waste. Also, the company builds a closed-loop carbon reduction system consisting of process optimization, resource regeneration, and end of pipe treatment, focusing on the industrialization of fourth generation fluorine refrigerants (HFOs) and the recycling of fluorine-containing by-products. Additionally, the company collaborates the research and development of ozone friendly technologies with carbon reduction targets to provide replicable environmental governance solutions for the global fluorine chemical industry.

### Important achievements in 2024

The total investment in environmental protection is 240 million yuan

The carbon dioxide emissions from industrial added value in 2024 decreased by 65.21% compared to 2020

HFC-23 decomposition unit (CDM project) reduces carbon dioxide equivalent emissions by 45.85 million tons

Clean energy usage accounts for 19.5%

Water recycling utilization rate 96.3%

The landfill rate of harmless waste is less than 5%, and the comprehensive utilization rate of solid waste is 96.46%

Participate in the implementation of the creation of a waste free group

Six subsidiary companies have passed the clean production audit and acceptance

The SDG goals addressed in this chapter:

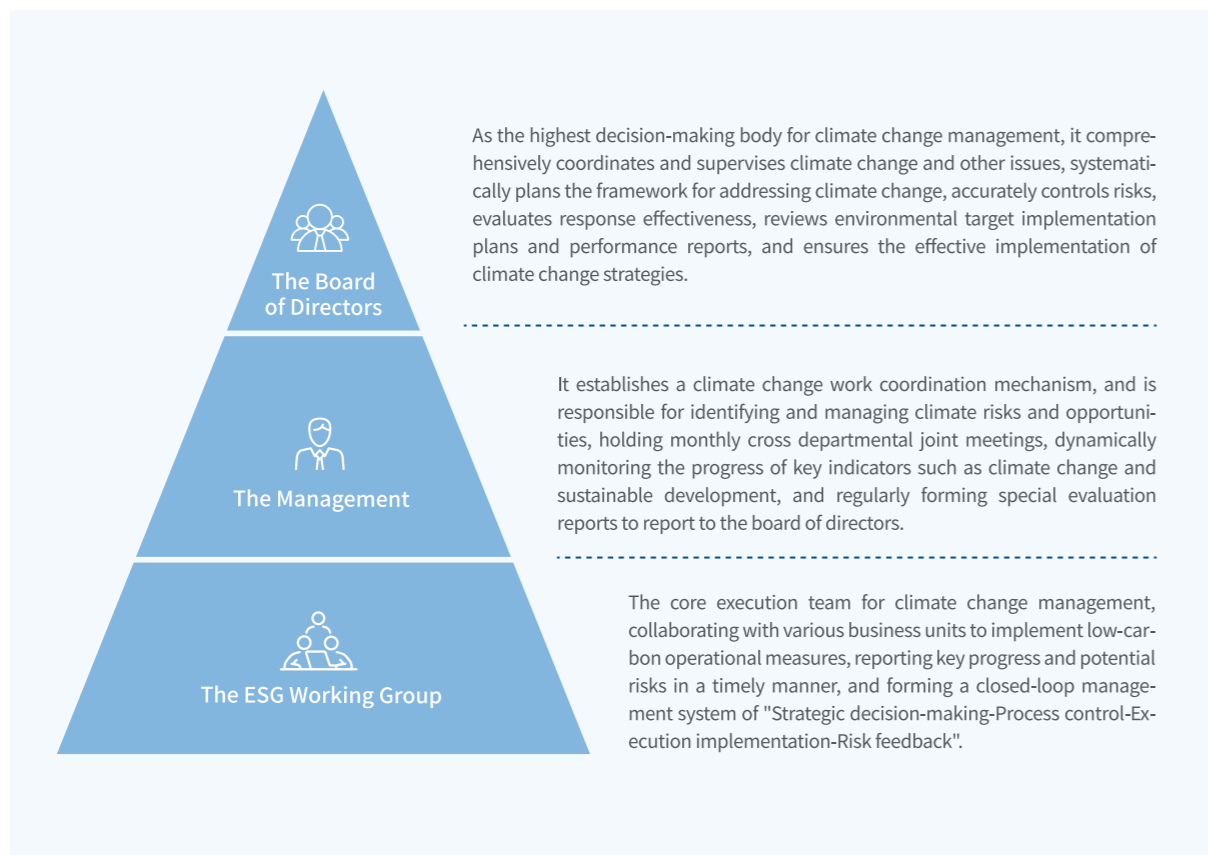




# Response to Climate Change

Juhua Corporation deeply recognizes the profound impact of climate related risks and opportunities on its business and industrial chain development. Referring to the climate related information disclosure framework of the *Task Force on Climate Related Financial Disclosure* (TCFD) and the *International Sustainability Standards Board* (ISSB)'s *International Financial Reporting Sustainability Disclosure Standard 2- Climate-Related Disclosures* (IFRS S2), Juhua Corporation has organized and presented its climate change management system from four aspects: "Governance", "Strategy", "Impact, Risk and Opportunity Management", and "Metrics and Targets", in order to enhance its resilience and ability to respond to climate change.

## • Governance



## • Strategy

Juhua Corporation has always regarded addressing climate change and achieving the "Dual Carbon" target as an important strategic direction for its own development. The company refers to disclosure frameworks such as TCFD and IFRS S2, and establishes response strategies for climate change mitigation through systematic identification of risks and opportunities, materiality analysis, and financial impact assessment.

Specific risks opportunities	Probability of occurrence	Impact size	Time scope	Impact on links in value chain	Prioritization	Potential financial impact	Countermeasures
<b>Physical risk-Acute physical risk</b>							
Typhoon, rainstorm and flood may affect production facilities, raw material storage and logistics transportation, leading to supply chain interruption	Medium	High	Short-term and mid-term	Upstream Operation Downstream	Medium	Depreciation of fixed assets, Rising operating costs	Establish a sound environmental risk emergency plan, Identify and Review potential physical risks annually, Establish a comprehensive response mechanism and emergency material reserves, Regularly improve response strategies, Ensure the continuity of research and development work together with various functional departments
<b>Physical risk-Chronic physical risk</b>							
An increase in average temperature may lead to an increase in energy costs and a decrease in outdoor work efficiency	Low	Medium	Mid-term and Long term	Operation	Medium	Rising operating costs	Establish a sound environmental risk emergency plan, Identify and Review potential physical risks annually, Establish a comprehensive response mechanism and emergency material reserves, Regularly improve response strategies, Ensure the continuity of research and development work together with various functional departments
<b>Transition risk -Policy and legal risks</b>							
The chemical industry in which the company operates is one of the key industries for ecological and environmental protection, and is a key focus of national environmental policy regulation. With the improvement of relevant environmental regulatory standards, the company may face compliance risks and operational risks caused by increased environmental investment	High	High	Mid-term and Long term	Upstream Operation Downstream	High	Rising operating costs	Adhere to the bottom line thinking of environmental protection. In addition to adhering to the "Three Simultaneities" of environmental protection, emission standards, and strengthening production process control, closely monitor environmental policies and industry trends, Actively adopt new processes and technologies to reduce pollution and emissions
Under the constraints of the new energy "Dual Control" and "Dual Carbon" targets, stricter restriction policies will be introduced for basic chemical products	Medium	High	Mid-term and Long term	Operation	High	Rising operating costs	Adhere to scientific development and innovation driven, Promote the high-end extension and upgrading of the industrial chain, vigorously, Develop the circular economy, Advance the process of raw material production of basic products, Continuously promote energy conservation and emission reduction, low-carbon and green development, Expand the environment and energy space, and improve competitiveness Track industrial policies and market trends, and plan response measures early

Specific risks opportunities	Probability of occurrence	Impact size	Time scope	Impact on links in value chain	Prioritization	Potential financial impact	Countermeasures
<b>Transition risk - Technical risk</b>							
The market demand for green and low-carbon products is increasing, and the cost of low-carbon innovation technology for the company is rising	Medium	Medium	Mid-term and Long term	Operation	Medium	Rising operating costs	Increase investment in low-carbon technology research and development, Actively seek partners, and accelerate the application and promotion of low-carbon technology
The risk of upgrading and replacing fluorine refrigerant products, if not handled properly, will have a significant adverse impact on the company's competitive position, competitiveness, and sustained profitability of fluorine refrigerants	High	High	Mid-term and Long term	Operation Downstream	High	Rising operating costs	With the target of building a globally leading comprehensive refrigerant manufacturer with competitiveness, we will continue to develop downstream fluoropolymers and fluorine fine products of TFE, and continue to research and develop low GWP new refrigerant monomers and mixed varieties such as the fourth generation fluorine refrigerant. To meet the development needs of the liquid cooling market, we will continue to increase the research and development of fluorinated liquid refrigerant products
<b>Transition risk - Market risk</b>							
The policies of "Dual Carbon" and "Dual Control" of energy are becoming increasingly stringent, leading to a significant increase in raw material and energy prices	Medium	Medium	Mid-term and Long term	Upstream operation Downstream	High	Rising operating costs	Optimize product structure, Continuously promote the high-end and green circular upgrading of the industrial chain, Deepen target cost management, Promote digital transformation of production equipment, implement benchmarking management, resource reuse, and reduce material and energy consumption, Strengthen development and cooperation with suppliers, optimize supply and transportation channels, and promote diversification of raw materials
<b>Opportunity - Market opportunities</b>							
The national "Dual carbon" policy promotes the growth of demand for high value-added and low-energy products, and the market demand for green products such as fluorine materials and environmentally friendly refrigerants (HFOs) in the company is increasing	High	High	Short term and mid-term	Operation	High	Increase in operating revenue	Continuously promote environmentally friendly technological innovation, Increase research and development investment in green and low-carbon products, Strengthen market promotion and brand building
Opportunities during the HFC quota period, the company has achieved an absolute leading position in HFC production quotas, providing effective support for the company's performance	High	High	Mid-term and Long term	Operation	Medium	Increase in operating revenue	Seize policy opportunities and advantages, and build a multidimensional collaborative development system through the dual drive of strategic focus and technological upgrading

Specific risks opportunities	Probability of occurrence	Impact size	Time scope	Impact on links in value chain	Prioritization	Potential financial impact	Countermeasures
<b>Opportunity - Products and Services</b>							
The fourth generation of environmentally friendly refrigerant HFOs products have made significant breakthroughs, with varieties and scale leading in China	High	High	Mid-term and Long term	Operation Downstream	High	Increase in operating revenue	Taking technological breakthroughs as an opportunity, relying on the circular economy model to build a low-carbon competitiveness throughout the entire chain
<b>Opportunity - Energy sources</b>							
Using renewable energy to improve resource efficiency and reduce operating costs	Medium	Medium	Mid-term and Long term	Operation	Medium	Decreased operating costs	Continuously optimize the energy structure, Increase the proportion of renewable energy use, Improve energy utilization efficiency, and regularly conduct energy efficiency assessments to achieve scientific energy management

Note: 1. Probability of occurrence: Refers to the frequency and likelihood of risks or opportunities occurring. Based on past data, external scenarios, policy implementation progress, and expert predictions, the probability of occurrence ranges from low to high.

2. Impact size: Refers to the size of the impact on the likelihood of risk or opportunity occurrence, taking into account factors such as business model, value chain, and financial condition, with the impact size ranging from low to high.

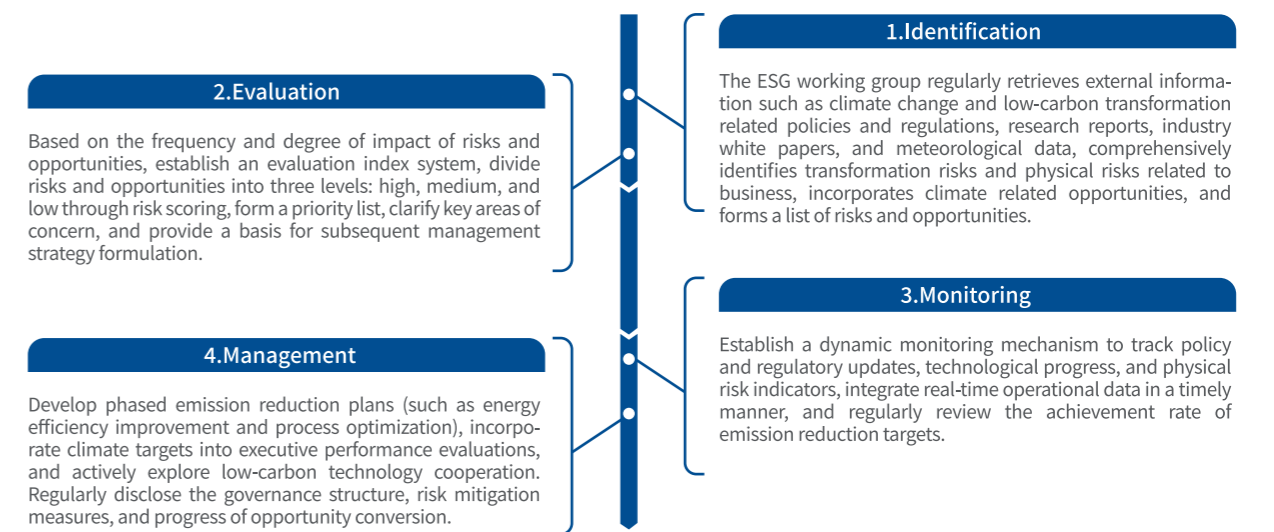
3. Time scope: The time scope in which different risks and opportunities affect the company is divided into short-term (1-2 years), mid-term (3-5 years), and long-term (more than 5 years).

4. Impact on links in value chain: upstream (procurement, raw materials), operation (production, manufacturing), downstream (marketing, sales, customer service).

5. Prioritization: Taking into account factors such as probability of occurrence, impact size, and time range, combined with the actual situation of the company, the priority ranking is divided into low, medium, and high.

**• Impact, risk, and opportunity management**

The company integrates its own business characteristics, internal and external environment, and external professional advice to establish a comprehensive management process for climate change related impacts, risks, and opportunities, including four key links: identification, evaluation, monitoring, and management.



• Opportunities in clean tech

Juhua Corporation adheres to the concept of green, low-carbon, and high-quality development, formulates long-term strategic plans to address climate change, actively seizes opportunities, and systematically plans and sets short-term, mid-term, and long-term carbon reduction targets.

With the deep decarbonization of the entire fluorine chemical industry chain as the core path, the plan is to achieve peak carbon emissions by 2027, build an industrial system characterized by low-carbon emissions, form a low-carbon "Mega Model" with significant demonstration effects, and lead the country in low-carbon development.



Based on the vision of the "Zero Carbon Fluorine Industry Chain", break through disruptive technologies such as fluorine based CCUS and green power supply system, deeply participate in the formulation of global fluorine chemical carbon removal standards, ensure carbon neutrality by 2060, and reconstruct the climate resilience of the fluorine chemical industry.



Goals and Achievements in 2024

According to the requirements of the State-owned Assets Supervision and Administration Commission of Zhejiang Province, Juhua Group's industrial added value carbon dioxide emissions in 2024 need to decrease by more than 16% compared to 2020. As the main company of Juhua Group, Juhua Corporation actively responded and exceeded its targets, with a 65.21% decrease in industrial added value carbon dioxide emissions in 2024 compared to 2020.

Response measures

To achieve our established goals, we actively practice the concept of green development, reduce energy consumption and carbon emissions through technological innovation, green design, and management upgrades.

Product Green Design

The company's third-generation HFC based refrigerant has become the mainstream product in the current market due to its complete non destruction of the ozone layer. However, due to its high greenhouse effect value, Juhua Corporation is gradually promoting its reduction plan and actively promoting the fourth generation HFOs based refrigerant. HFOs refrigerants have low global warming potential (GWP), short atmospheric residence time, and stable chemical properties, making them ideal alternatives to HFCs. The company has built and stably operated two sets of HFOs production facilities, and is in a leading position in the diversity of HFOs varieties and the effectiveness of production scale in China.

Product carbon footprint and enterprise carbon verification

The company has comprehensively promoted product carbon footprint accounting and certification, and has completed the quantitative assessment of carbon footprint of more than 10 key products such as caustic soda, liquid ammonia, R134a, etc., and implemented annual enterprise carbon verification through third-party organizations. At the same time, we will systematically establish a value chain greenhouse gas management system, gradually carry out scope 3 emission accounting work covering upstream and downstream, and strengthen the ability to control carbon data throughout the entire industry chain.



Clean Development Mechanism (CDM)

As the first fluorine chemical enterprise and listed company to implement the National Clean Development Mechanism (CDM), the company retains the original CDM project's HFC-23 decomposition unit. In 2024, the HFC-23 incineration decomposition rate will be over 99.99%, reducing carbon dioxide equivalent emissions by 45.85 million tons.

Case

Project of upgrading equipment for improving the quality and efficiency of production facilities in an electrochemical plant



In the context of the "Dual Carbon" target, in order to achieve energy conservation and carbon reduction, and ensure that the energy efficiency of the project's energy consuming equipment reaches the energy-saving level or above, the company plans to carry out a project to upgrade the quality and efficiency of the production equipment in the electrochemical plant. The project, with an investment of 105 million yuan, aims to update and select advanced level bipolar zero pole distance natural circulation electrolytic cell systems, and eliminate old and inefficient outdated equipment such as compressors, distillation absorption systems, synthesis furnaces, fans, filters, centrifuges, heat exchangers, evaporation reactors, motors, pumps, etc. At the same time, it will be upgraded to high-efficiency and energy-saving advanced equipment, and equipped with optimized electrical and self-control facilities. Through these measures, the energy-saving and carbon reduction transformation of existing production facilities such as ion-exchange membrane caustic soda, TCE, 142B, PVDF, etc. can be effectively achieved without increasing product capacity. After the implementation of the project, it is expected to save more than 7000 tons of standard coal per year and reduce carbon dioxide emissions by more than 18200 tons per year.

Accounting standard: Guidelines for Accounting and Reporting of Greenhouse Gas Emissions of Chinese Chemical Production Enterprises (Trial)

Accounting method:

- 1 Determine the boundaries of the enterprise.
- 2 Determine the emission sources and gas types that should be accounted for.
- 3 Identify the carbon sources and their categories that flow into and out of the boundaries of enterprises.
- 4 Collect activity level data for various carbon sources and streams.
- 5 Select and obtain emission factor data.
- 6 Calculate the emissions of various greenhouse gases based on the corresponding formulas for each emission source.
- 7 Calculate the CO2 emissions caused by the net purchase of electricity and heat.
- 8 Summarize and calculate the total greenhouse gas emissions of enterprises.

During the reporting period

Company total carbon emissions  
**6.4180** million tons

Scope 1 emissions  
**3.1545** million tons

Scope 2 emissions  
**3.2635** million tons.



Juhua Corporation, as the only carbon neutral partner of the 2024 Shanghai Climate Week, participated in the opening ceremony and Green Carbon Asia Forum

<sup>1</sup>Refers to the large-scale enterprises of Juhua Corporation, detailed statistical criteria can be found in the key performance table.

# Environmental Compliance Management

The company adheres to the main line of environmental protection work of "Collaborative Carbon Reduction + Pollution Reduction and Efficiency Improvement", with continuous improvement of ecological environment quality as the core, deeply promotes pollution prevention and control actions, and comprehensively establishes and improves the environmental management system. As of the end of the reporting period, all 18 subsidiaries of the company with production activities have obtained ISO14001 environmental management system certification, driving green development with a sound environmental protection system.



The company strictly complies with national laws, regulations, and environmental management standards such as the Environmental Protection Law of the People's Republic of China, the Environmental Impact Assessment Law of the People's Republic of China, and the Regulations on the Administration of Construction Project Environmental Protection. The company has formulated 20 environmental management systems, including environmental protection, pollutant discharge permits, "Three Simultaneities" for construction projects, water pollution prevention and control, air pollution prevention and control, major maintenance management, and pollution accident management, and has timely revised and improved them according to relevant national policies, regulations, and actual situations.

The company has established a three-level linkage environmental management system, forming a closed-loop management mechanism of strategic decision-making, supervision and review, and implementation



At the beginning of the year, the company's safety and environmental department formulated specific tasks for annual safety, environmental protection, and occupational health work, and signed environmental protection target responsibility agreements with each secondary unit to clarify the division of responsibilities. Regularly hold work meetings, track progress towards goals, conduct quarterly inspections and evaluations, and conduct comprehensive assessments at the end of the year to ensure effective implementation of various environmental protection goals.

## • Clean production

The company aims to become a demonstration enterprise for clean production, actively practicing the concept of green development, following environmental protection and energy-saving standards, and strictly implementing the green production system. During the reporting period, Fluorine New Chemical Company and Jinju Chemical Company passed the clean production audit and acceptance in Quzhou City, while Jusheng Fluorination Company, Quhua Fluorination Company, Lanxi Fluorination Company, and Electrification Plant passed the mandatory clean production audit and acceptance in Zhejiang Province.

## • Environmental risk related training

In order to strengthen the environmental compliance awareness and legal risk prevention of enterprises, and improve the level of environmental management, the company and its subordinate units regularly conduct environmental risk training to enhance employees' awareness and prevention of environmental risks. The training covers environmental management systems, processes, common risks, and prevention methods. Through case analysis and emergency drills, it systematically enhances employees' ability to respond to sudden environmental incidents.

During the reporting period

Environmental protection professional training  
**36** sessions

A total of  
**7,806** participants

## • Environmental risk prevention and control

The company promotes the construction and improvement of the environmental emergency management system with high standards and strict requirements, and has formulated the **Emergency Management Measures for Sudden Environmental Pollution Incidents**. All subordinate units have revised their emergency plans for sudden environmental incidents in a timely manner as required, and have completed the filing with the Quzhou Ecological Environment Bureau to achieve timely identification and effective control of environmental risks.

### Environmental event risk assessment and prevention management

- The company has established an emergency management system for accidents, regularly conducting environmental risk event assessments, emergency plan training, and daily emergency drills to enhance the level of emergency response equipment for sudden environmental incidents and the emergency response capabilities of personnel on duty.
- The company has established a three-level emergency interception and prevention system from the tank area, responsibility ditch to the external drainage channel. Emergency gates have been set up in the east/west drainage channels, and each unit has built accident emergency pools and equipped with corresponding emergency supplies.
- The company has established the Zhejiang Province Safety Production Emergency Rescue Center in Juhua, responsible for the safety and environmental emergency rescue tasks of Juhua and the park, and building a strong regional environmental safety defense line.

## • Environmental monitoring

The company develops an environmental monitoring plan at the beginning of each year, regularly carries out unorganized emission monitoring and odor detection in the factory area, installs air stations and online monitoring equipment for key pollution sources to achieve real-time monitoring, and upgrades the smart environmental monitoring system to ensure continuous improvement in the quality of the factory and surrounding environment, providing reliable basis for updating the environmental protection system.

## • Environmental audit

The company continues to conduct internal environmental audits. Internal specialized environmental audits are conducted annually, covering all locations of operations. The audit content includes the operation and maintenance of pollution control facilities such as exhaust gas, wastewater, and solid waste, as well as the implementation of system documents.

## Pollution Prevention and Ecosystem Conservation

Guided by the continuous improvement of ecological environment quality, Juhua Corporation is fully committed to promoting pollution prevention and control actions, and advancing the three major battles of blue sky, clear water, and clean land with high standards. The pollution prevention and waste management work of the company is coordinated and implemented by the Health, Safety and Environmental Protection Department. Through the establishment of a three-level environmental protection network consisting of the company, subsidiary companies, and workshops, the department is fully responsible for organizing, planning, formulating, coordinating, supervising, and guiding environmental protection related work.

## Pollutant Emission

The company strictly complies with national and industry standards such as the Water Pollution Prevention and Control Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Air Pollution. The company has formulated pollution prevention and control management systems such as the Regulations on the Administration of Air Pollution Prevention and Control and Measures for the Administration of Water Pollution Prevention and Control, and strictly controls the generation and discharge of wastewater and exhaust gas in production and operation, effectively reducing its own environmental impact. In 2024, the company actively implemented soil and groundwater risk investigation and control work in accordance with the requirements of provincial and municipal environmental protection departments, vigorously implemented the Clean Air Action, and fully promoted the zero direct discharge sewage transformation project. After professional evaluation, the above governance measures have achieved the expected results and fully comply with environmental standards.

In terms of pollutant emission management, Juhua Corporation always adheres to the strategy of combining source reduction, process control, and end of pipe treatment to ensure that all pollutants are discharged in compliance with standards. The company strictly follows the "Three Simultaneities" requirements for construction projects, ensures that environmental protection facilities are designed, constructed, and put into operation simultaneously with the main project, providing complete pollution control facilities, and operates synchronously with production equipment to control the generation and emission of pollutants from the source.

At the same time, the company actively promotes the construction of digital intelligence safety and environment, promotes the application of the "Industrial Internet +Hazardous Chemical Safety Production" module, optimizes and upgrades the intelligent environmental protection monitoring system, and uses advanced management tools to monitor the "Three Wastes" emissions in an all-round, all-weather and whole process manner, so as to improve the quality and efficiency of safety and environment management.

### Wastewater

For the treatment of water pollutants, the company has taken a series of measures and achieved significant results:

#### Wastewater treatment and discharge

After the pre-treatment of the company's production wastewater meets the pipeline standards, it is transported to a third-party company's sewage treatment plant for centralized treatment. The sewage treatment plant is equipped with two advanced sewage treatment devices, which adopt the "Activated Sludge Method + Biofilm Method" and the "High-efficiency Bioreactor Aerobic Granular Sludge Process" respectively, to ensure that the wastewater treatment meets the standards before discharge.



waste water treatment

#### Online monitoring and emergency response

The wastewater discharge outlet is equipped with online monitoring facilities to monitor the real-time and continuous discharge of wastewater. Once abnormal data occurs, immediately activate the emergency response mechanism, quickly investigate and rectify, and ensure timely restoration of normal emissions.



Automatic control and regulation of the entire process of sewage treatment system



Discharge outlet of sewage treatment plant

#### Key treatment projects and zero direct discharge transformation of sewage

During the reporting period, the company actively carried out multiple key projects such as AOX (Adsorbable Organic Halogen) treatment and PVDF (Polyvinylidene Fluoride) washing water reuse, effectively improving wastewater treatment efficiency and successfully achieving the goal of zero direct discharge transformation of sewage. The ammonia nitrogen concentration in the responsible sections of the company's east and west drainage channels is controlled below 0.5mg/L, far exceeding the relevant emission standards.

During the reporting period, the water pollutants discharged by the company's key polluting units

chemical oxygen demand (COD)	ammonia nitrogen (NH <sub>3</sub> -N) of the water
<b>271.70</b> tons	<b>12.07</b> tons

which were significantly lower than the approved total discharge amount, and there were no instances of excessive discharge

### Toxic emission

Regarding the treatment of air pollutants, the company has taken a series of measures and achieved significant results:

#### Toxic emission treatment and standard emissions

During the production and operation process, the company ensures standard emissions of four major pollutants, including sulfur dioxide, nitrogen oxides, particulate matter, and VOCs, through processes such as condensation, adsorption, incineration, desulfurization, denitrification, and dust removal. Among them, volatile gases are treated by condensation and activated carbon adsorption. Fluorine containing waste gas is treated by incineration. Acid alkali waste gas is washed with water and alkali processes. Dust and exhaust gases are treated with bag dust removal.

### Comprehensive improvement project of atmospheric environment

The company has implemented denitrification transformation of Quhua Fluorination Company's hot blast stove and Jusheng Fluorination Company's incinerator, sulfur dioxide production from hydrogen sulfide incineration in sulfuric acid plant, dust removal transformation of calcium chloride tail gas in electrochemical plant, and acetylene gas recovery from carbide slag slurry, effectively improving the regional atmospheric environment quality.

During the reporting period, the key polluting units of the company emitted

sulfur dioxide	nitrogen oxides
<b>38.09</b> tons	<b>135.21</b> tons

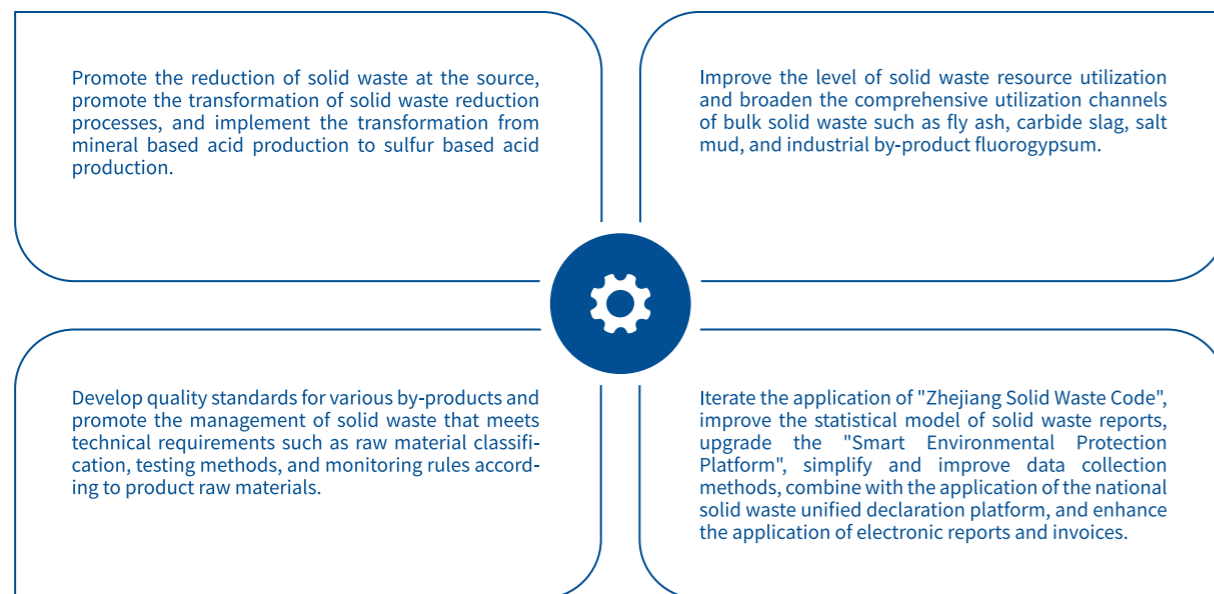
both significantly lower than the approved total emissions, with no occurrences of excessive emissions.

## Waste Disposal

The company strictly adheres to national and industry standards such as the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, the Measures for the Prevention and Control of Environmental Pollution by Discarded Hazardous Chemicals and the Standard for Pollution Control on the Storage and Landfilling of General Industrial Solid Waste. At the same time, internal management systems such as the Measures for the Administration of Industrial Solid Waste Disposal have been developed to comprehensively carry out waste management work on this basis. During the reporting period, the company continued to carry out the action of zero solid waste, initiated the construction of zero waste factories, and participated in the formulation of two group standards for zero waste parks and zero waste factories.

### Disposal of harmless waste

The company implements standardized management of the entire process of industrial solid waste generation, collection, storage, transportation, utilization, and disposal. The company focuses on reducing solid waste at the source and promoting comprehensive utilization to improve the overall utilization rate of resources. Specific measures are as follows:



### Disposal of hazardous waste

The company strictly follows the requirements of national laws and regulations to collect, classify and temporarily store waste, and then hand it over to qualified third-party professional institutions for safe transfer and proper disposal. In addition:

- Fully utilize internal resources to promote the quality and efficiency improvement of the coal water slurry hazardous waste collaborative disposal facilities of Jinju Chemical Company, and conduct a comprehensive evaluation of the hazardous waste generation, utilization and disposal capabilities, as well as the operation of the facilities.
- Through closed-loop industrial chain and resource recycling, the company actively explores ways to reuse hazardous waste. The sulfuric acid plant adopts the H<sub>2</sub>S waste gas incineration process to produce liquid sulfur dioxide, which can reduce sulfur paste by about 800 tons per year.
- With the help of the hazardous waste "Zhejiang Solid Waste Code" construction system, intelligent monitoring is achieved in all aspects of warehousing scanning, transportation coding, and disposal and sales coding, improving the level of closed-loop management of hazardous waste.
- Strengthen emergency response capabilities, establish a list of emergency facilities for collaborative disposal of sudden environmental risks, and explore the establishment of a reporting process for abandoned hazardous chemicals and temporary hazardous waste not included in environmental impact assessments.

### Metrics and targets

During the reporting period, the company generated 826825.43 tons of harmless waste<sup>2</sup> and 23496.81 tons of hazardous waste<sup>3</sup>. The landfill rate of harmless waste is less than 5%, basically achieving "Zero Landfill". The good rate of standardized environmental management assessment for hazardous waste has reached 100%, which is at the advanced level in the industry.

Juhua Corporation will continue to deepen its waste management work in the future, and further improve the level of resource utilization, reduction, and harmless waste through technological innovation and management optimization. It is expected that by 2025, the amount of hazardous waste generated by the company will decrease by 10% compared to 2024, and by 2027, the company's general solid waste utilization rate will reach 98%.

### Case Creation of a "Waste Free Group"

As the largest advanced manufacturing base for fluorine chemicals in China and a core chemical base in Zhejiang Province, Juhua Group has a complete fluorine chlorine new material industry chain, including fluorine containing new materials, fluorine containing special materials, and fluorine refrigerants. In order to solve the problems of multiple types of hazardous waste, high disposal intensity, and high environmental risks in the production enterprises within the group, we innovatively carry out the construction of a "Waste Free Group", and build a resource recycling system through targeted utilization of hazardous waste across factory areas, shared disposal facilities, and collaborative pollution reduction and carbon reduction mechanisms. Juhua Corporation, as the main implementing entity, collaborates with the Safety and Environmental Protection Department and the Production and Operation Department to promote related work. At present, Juhua Group has been selected as one of the first batch of key cultivation lists for waste free groups in Zhejiang Province.

Note<sup>2</sup>: the statistical caliber of harmless waste is the solid waste generated in the production and operation process of the company.

Note<sup>3</sup>: the statistical caliber of hazardous waste is the hazardous waste generated in the production and operation process of the company.

## Ecosystem and Biodiversity Conservation

All operating points of Juhua Corporation are located in non-key protected areas, and their production and business activities have no significant impact on the ecosystem and biodiversity. However, Juhua Corporation still adheres to the advanced concept of "Industrial Symbiosis and Ecological Value-added" and is committed to building an ecosystem protection system with fluorine chemical characteristics. The company actively engages in the development of green, biodegradable and environmentally friendly materials, and conducts in-depth ecological product design of fluorine-containing materials and petrochemical new materials. At the same time, actively exploring the use of green and low-carbon raw materials, prioritizing the establishment of cooperative relationships with environmentally friendly raw material suppliers, leading the collaborative emission reduction of upstream and downstream industrial chains, in order to effectively alleviate the pressure of climate change and reduce the negative impact of products on the ecosystem. The company strives to create an atmosphere where all employees love, plant, and protect greenery. During Arbor Day every year, from management to grassroots employees, they fully participate and actively carry out voluntary tree planting activities. As of the end of the reporting period, the Juhua plant area has cultivated more than 150 types of green plants, with a green coverage rate of 36% in public areas and a green plant area of over 400000 square meters. It has successfully created ecological gold cards such as "Garden Style Factory" and "Chemical City in the Forest".



## Sustainable Resource Management

Juhua Corporation adheres to the sustainable resource management strategy of green and low-carbon, and strives to promote the efficient utilization and recycling of energy and water resources. The company continuously reduces energy and water consumption and improves resource utilization efficiency by optimizing production processes, promoting energy-saving and water-saving technologies, and strengthening resource recycling and utilization.

### Energy Utilization

Juhua Corporation has formulated energy consumption management and other related systems in accordance with relevant policies and regulations, which are managed by the Production and Operations Department. The company has established a top-down energy-saving management and monitoring system, implemented graded energy budget management for key energy consuming enterprises, and continuously promoted the improvement of energy management and measurement systems for subordinate enterprises. Quhua Fluorination Company and Jusu Chemical Company have obtained energy management system certification (GB/T 23331-2020/ISO 50001:2018).

#### Energy usage

According to the *Notice on the Decomposition and Verification of Fossil Energy Consumption Budgets for Key Energy-Using Units* issued by the Zhejiang Provincial Energy Bureau, the energy consumption budget target for Juhua Corporation in 2024 is 1.6 million tons of standard coal (excluding raw material use). After strict control and optimized scheduling, the company's actual energy consumption for the whole year was 1.4741 million tons of standard coal, which was 125900 tons of standard coal surplus compared to the budget target, successfully achieving the established energy consumption target for 2024.

### Main energy types and usage

	Energy type	Usage
Direct energy	Coal	506,253 tons
	Natural gas	98.22 million cubic meters
	Gasoline	8 tons
	Diesel	4 tons
Indirect energy	Heat	14,083,543.00 million kilojoules
	Power	3,078.88 million kilowatt hours
	Lubricant	94 tons

#### Energy management objectives

In the future, the company will continue to vigorously implement energy-saving and consumption reducing technology upgrades, promote equipment upgrades, strengthen energy management system construction, and ensure the continuous achievement of annual energy budget targets.

• Clean energy usage

The company actively responds to the call of the national "Dual Carbon" target and promotes the construction and use of clean energy. Through a series of effective measures such as participating in green electricity market transactions and accelerating the construction of solar photovoltaic power generation projects in the factory area, we will continue to optimize the energy structure and promote diversified energy allocation.

In 2024, the company actively participated in green electricity market transactions, purchasing a total of 625 million kilowatt hours of green electricity and certificates throughout the year, and vigorously promoting the construction of renewable energy consumption systems.

During the reporting period

company successfully achieved **19.5%** share of clean energy usage **reduced carbon dioxide emissions by 335,400 tons**



Case Solar Photovoltaic Power Generation System

The company implements the new development concept and is committed to promoting low-carbon, green and sustainable development. It has built large-scale solar photovoltaic power generation systems in the factory area, fully utilizing spaces such as factory roofs, carports, walls and pipe racks, installing efficient photovoltaic modules, and creating diversified photovoltaic application scenarios. Fully leverage our own advantages in new materials and innovate photovoltaic panels with lightweight, flexible, self-cleaning, and strong weather resistance through research and development cooperation, providing innovative solutions for green and low-carbon development.



• Energy saving and consumption reducing measures

The company adheres to the path of energy-saving, low-carbon and green development, continuously carries out energy-saving technological upgrades, industrial upgrading and digital transformation, and reduces carbon emissions and energy consumption.

Energy saving renovation and equipment update

Completed the renovation plan for four multi-stage centrifugal blowers at Jinju Chemical Company, with an expected energy-saving rate of approximately 30%; Promote the steam recovery transformation of TFE cracking furnace, promote the application of energy-saving new technologies and processes such as supergravity and microreaction, improve efficiency and reduce energy consumption. The company plans to implement the equipment upgrade project for improving the quality and efficiency of the synthetic ammonia unit of Jinju Chemical Company, the equipment upgrade and renovation project for Quhua Fluorination Company, and the equipment upgrade and efficiency improvement project for the production unit of the electrochemical plant. After the completion of the projects, it is expected to save 13600 tons of standard coal and reduce 35300 tons of carbon dioxide emissions annually. In addition, the company has upgraded the digital and intelligent lighting system in the office building corridor, introducing intelligent switches, human body sensing, and wireless gateway technology to achieve scene based lighting control. Iterative upgrade of central air conditioning units, installation of control panels to achieve centralized control and precise operation. The renovation of lighting and air conditioning series has saved 306000 kilowatt hours of electricity throughout the year, effectively promoting the company's green and low-carbon development.

Industrial restructuring

The company vigorously develops the green and low-carbon refrigerant industry. As the world's largest refrigerant production enterprise, Juhua Corporation holds a leading position in the refrigerant market. In recent years, the company has made significant breakthroughs in the research and development of the fourth generation environmentally friendly refrigerant HFO product, successfully developing the preparation process of HFO-1234yf, HFO-1234ze and other products, and smoothly realizing the entire process from research and development to industrial production. At the same time, the company closely focuses on the demand for new materials in the fields of new energy and digital industries, and vigorously develops green and low-carbon new materials. At present, the 10kt/a PVDF project, 30kt/a PVDF project, and 48kt/a VDF project have been successfully completed and put into operation. Breakthroughs have also been made in projects such as piezoelectric resin (PVDF-X2), POE, and thermal management technology for lithium battery energy storage. In addition, a number of strategic emerging industry projects such as high-quality meltable fluororesin, perfluorosulfonic acid resin, multifunctional fluorinated chemicals, and silicon-based electronic grade specialty gases are steadily advancing as planned.

Digital intelligence driven

In 2024, the company will anchor its development goals of "Compliance, Efficiency, and Satisfaction" and deepen the iterative upgrading of the "Three Zero" project. Complete the task of upgrading 97 sets of sophisticated equipment throughout the year and create 16 sets of sophisticated equipment. The company has systematically established a standard system for Juhua's intelligent manufacturing work, significantly improving the economic operation capability and intelligent management level of the equipment. At the same time, the company's digital transformation is steadily accelerating, with key digital platforms such as the digital procurement platform, digital mall, financial BPC consolidated reporting system, and customer relationship management system successfully launched and operated one after another. In addition, the company focuses on the construction of core platform capabilities, relying on the "Juhua e-site" to create a series of innovative applications such as "e-process", "e-performance", "e-safety", etc., to achieve deep integration of core business platforms.



Three zero project



Ningbo Juhua Digital Factory Based on "5G+Industrial Internet"



Unmanned forklift



Inspection robot



## Water Resources Utilization

Juhua Corporation is committed to achieving the rational utilization and effective protection of water resources, systematically addressing water resource management challenges, incorporating water-saving goals into long-term development strategies, and promoting standardized and scientific management of water resources.

### Water resource management

#### Strategic level: Board of Directors

The company's board of directors coordinates the development of water resource management strategic plans and goals, incorporates them into the governance system, and collaborates with the long-term development strategy of the enterprise.

#### The Management level: CEO of the company

The CEO of the company, as the first person responsible for strategic execution, is fully responsible for implementing the water resources management strategy and achieving performance goals; Based on the strategic deployment of the board of directors, coordinate the preparation and implementation of plans and management measures to ensure the effective achievement of water resources management goals.

#### Executive level: ESG working group

The ESG working group, as the executing entity, is responsible for implementing water resource management measures, monitoring performance, and dynamically tracking and evaluating to ensure compliance with strategic objectives.

Juhua Corporation has established a water-saving management system covering the entire process, incorporating water use plans into the annual comprehensive plan special management, and deeply linking water-saving indicators with energy conservation, consumption reduction, and target cost control through an assessment mechanism. The system covers nine key links including water supply approval, plan execution, and facility maintenance, forming a complete standardized management chain. At the same time, the company has established a risk assessment mechanism, regularly conducts dynamic diagnosis of water resource risks for subordinate units, identifies key control areas, and implements graded management strategies to ensure accurate and effective water risk prevention and control.

According to the Notice of Juhua Group on Issuing the Comprehensive Production and Operation Plan for 2024 (Juhua Financial Assets [2024] No. 2), Juhua Corporation plans to extract 27.81 million cubic meters of water in 2024. Through scientific management and effective measures, the actual water intake of the company was 25.0858 million cubic meters, successfully controlled within the planned range. In 2024, the amount of water reused by Juhua Corporation was 3.2 million cubic meters, with a water recycling rate of 96.3%, which is at the forefront of the industry.

In the future, the company will be driven by the construction of a water-saving management system and innovation in recycling technology. Through systematic projects such as optimizing water treatment processes and improving graded utilization mechanisms, the company will continue to increase the scale of reclaimed water reuse and achieve the control goal of steadily reducing the intensity of fresh water extraction.



### Water resource management performance

Index	Unit	2024	2023	Year-on year change rate
Reclaimed water usage	10 <sup>4</sup> cubic meters	320	320	0
Fresh water extraction volume	10 <sup>4</sup> cubic meters	2,508.58	2,642.30	Decrease by 5.10%
Fresh water extraction intensity	10 <sup>4</sup> cubic meters/million industrial output value	0.10	0.12	Decrease by 7.00%
Total water intake <sup>1</sup>	10 <sup>4</sup> cubic meters	2,828.58	2,962.30	Decrease by 4.50%
Water recycling rate <sup>2</sup>	/	96.3	95.7	Increase by 0.63%
Total water consumption <sup>3</sup>	10 <sup>4</sup> cubic meters	1,305.81	1,176.13	Rising by 11.03%
Water consumption density	10 <sup>4</sup> cubic meters/million industrial output value	0.052	0.054	Decrease by 3.70%

1 Calculation method: Fresh water extraction amount + alternative water extraction amount

2 Calculation method: (circulation amount/(circulation amount + water intake)) \* 100%

3 Calculation method: Total water intake - Total drainage

### Case Alternative Water Source Use

To save water and improve water resource utilization, the company has taken active measures in the use of alternative water sources. By adopting advanced treatment technology, the saltwater in high salt wastewater is separated and reused in systems such as circulating cooling, achieving efficient utilization of water resources. In terms of reclaimed water reuse, the company conducts advanced treatment on wastewater to meet certain water quality standards, and then partially recycles it for enterprise production, reducing the amount of water taken from tap water and saving water costs.

### Water saving enterprises

Juhua Corporation systematically promotes the construction of water-saving capabilities in its subordinate enterprises by building a three in one water-saving control system of "Strategic Guidance-Standard Embedding-Technology Empowerment". Juhua Corporation has included 18 key indicators such as water resource consumption intensity and reclaimed water utilization rate in its subsidiary KPI assessment, and implemented a "One Enterprise, One Policy" water-saving transformation plan for its subsidiaries.

#### Water-saving enterprises in Zhejiang Province

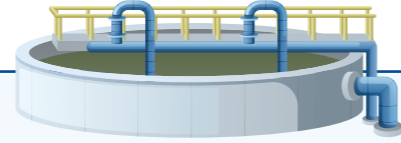
Electrochemical Factory, Jinju Chemical Company, Juhua Chinlon Company, Quhua Fluorination Company, Jusheng Fluorination Company, Jusu Chemical Company, Fluorochemical New Company, and Lanxi Fluorination Company

#### Water-saving enterprises in Zhejiang Province

Electrochemical Factory, Quhua Fluorination Company, and Juhua Chinlon Company

• Water-efficient production processes

The company actively promotes the efficient utilization of water resources through a series of innovative measures and technological transformations.



Management direction

Specific measures



- **Water balance test:** Regularly conduct water balance tests to accurately analyze the current water use situation, identify water problems in the production process, strengthen production water management, reasonably control water use, and propose actionable improvement suggestions. Multiple units such as the Electrification Plant, Jinju Chemical Company, Quhua Fluorination Company, and Juhua Chinlon Company have passed the water balance test.
- **Complete measurement facilities:** Ensure that measuring instruments are fully equipped and have a high standard of integrity, providing a basic guarantee for accurate water management.
- **Optimization of circulating water dosing:** Unified bidding for circulating water dosing to reduce dosing costs, while selecting efficient water treatment agents to control water quality. While ensuring normal production, increasing the concentration ratio of circulating water is adopted to reduce drainage and improve water resource utilization.



- **New project management:** Strictly control new projects, determine scientifically reasonable water usage quotas based on the principle of water conservation, and ensure that water-saving measures are designed, constructed, and put into operation simultaneously with the main project. The indirect cooling water recycling rate of the new project must be greater than 95% to improve the water-saving capacity of the new device from the source.
- **Old equipment renovation:** We will focus on the water-saving technology renovation of old equipment, apply the "Four New" water-saving technologies, change traditional water use processes, and reduce water resource consumption. At the same time, intelligent transformation will be carried out to enhance the energy-saving and water-saving level of the equipment.



- **Steam condensate water recycling:** Steam condensate water is high-quality desalinated water, which is much higher in quality than softened water and close to pure water. The company has basically achieved comprehensive utilization of condensate water.

## Circular Economy

Juhua Corporation adheres to the concept of resource intensification and value reconstruction, and is managed throughout the entire process of circular economy by the ESG working group. The company has formulated management guidelines, clarifying the 4R principles and implementation details of "Reduce, Reuse, Recycle, Remanufacture", and incorporating circular economy indicators into the subsidiary's annual KPI assessment system. Through the ISO 14001 framework, Juhua Group deeply integrates the circular economy into enterprise operations, optimizes resource utilization, implements green procurement, promotes product reuse and recycling, and builds a full lifecycle control mechanism covering "Research and development- Production-Recycling".



Industrial chain circular system

The company combines environmental protection with comprehensive resource utilization to build a circular economy circle of "Resources Products Renewable Resources Products". A core fluorine chemical industry chain has been developed using methanol from Jinju Chemical Company, liquid chlorine from an electrochemical plant, and sulfuric acid from a sulfuric acid plant as raw materials. The development of fluorine chemical industry has driven the upgrading and replacement of traditional chlor alkali chemical and coal chemical industries, strengthening the coal chemical industry chain and salt chemical industry chain. The utilization of by-product hydrogen from coal chemical and salt chemical industries has driven the development of a series of petroleum processing extension products such as cyclohexanone, caprolactam, cyclohexanol, and hydroxylamine, forming a petrochemical industry chain. The circular economy circle composed of three main chains "exhausts" the company's raw materials, products, intermediates, and by-products, reducing production consumption while greatly reducing energy consumption and pollution emissions, and constructing a new economic development model of ecological giant.



Reduction, harmlessness, and resource utilization of three wastes

The company continuously expands the comprehensive utilization channels of bulk solid wastes such as fly ash, carbide slag, salt mud, and industrial by-product fluorogypsum, achieving a purification and resource utilization rate of 100% for calcium fluoride sludge and achieving solid waste reduction. At the same time, a circular resource utilization path for by-product hydrogen chloride glycerol method epichlorohydrin calcium chloride was constructed, effectively improving the product quality of by-product calcium chloride, achieving an annual gross profit margin of over 20%, and significantly reducing the processing cost of by-product hydrochloric acid. The company fully utilizes the coal water slurry incineration device of Jinju Chemical Company to achieve the resource utilization of high concentration wastewater.

During the reporting period

comprehensive utilization of solid waste  
**796,485.34** tons

comprehensive utilization rate  
**96.46** %

# Opportunities in Clean Tech

Juhua Corporation will deeply embed its clean technology strategy into the framework of sustainable development of the enterprise, and systematically build a clean technology innovation system around the three core targets of "Low-carbon whole chain, Technological self-reliance, and Green production". The company focuses on clean development, conversion, and utilization technologies for fossil fuels, green and efficient synthesis technologies, new generation clean and efficient recyclable production processes, energy conservation and carbon reduction, and carbon dioxide utilization technologies. Around these key technological areas, the company actively carries out ecological product design for fluorine-containing materials and petrochemical new materials, explores the use of green and low-carbon raw materials, reduces the carbon footprint of the entire product lifecycle, and drives emissions reduction in the upstream and downstream industrial chains.

In terms of R&D investment, the R&D expenditure in 2024 reached 1.054 billion yuan, a year-on-year increase of 5.34%. In the future, the company plans to continue increasing its R&D investment and expanding its R&D team. It is expected that R&D expenditures will increase to 1.167 billion yuan by 2025.

The company adopts the "Green Factory+" model to fully promote the industrial application of clean technology. Relying on national level green factories as technology incubation bases, we have built a full process clean technology transformation path from "Process design-Pilot testing-Engineering scaling up". As of the end of the reporting period, the company has 2 national level green factories, 1 provincial level green factory, and 5 municipal level green factories. Looking ahead to the future, the company plans to continuously improve the level of recycling by 2027, further enhance the driving force of green development, build 6 green factories at or above the city level, and promote the deep application of clean technology in the entire industry.

As of the end of the reporting period

The company has obtained a total of **98** patents in the field of clean technology

During the reporting period

New patents were applied for **14**

Public announcement number	Title	Current applicant (patent holder)
CN118702543B	Pentafluoropentanol and method for synthesizing pentafluoropentanol using by-product pentafluorochloroethane	Feiyuan Chemical Company
CN222266495U	A carbon dioxide capture device	Jinju Chemical Company
CN222143831U	A steam recovery device	Jinju Chemical Company
CN221958695U	A leakage prevention device for liquid ammonia pipeline transportation	Jinju Chemical Company
CN221846077U	Recovery system for trifluoroacetic acid	Feiyuan Chemical Company
CN221279532U	Sulfur based sulfuric acid plant circulating water waste heat utilization system	Feiyuan Chemical Company
CN221093817U	A high salt wastewater evaporator	Feiyuan Chemical Company
CN220968120U	An energy-saving distillation tower for difluorochloromethane	Lanxi Fluorination Company
CN221005110U	Gas steam boiler flue gas waste heat recovery and utilization system	Feiyuan Chemical Company
CN117024245B	A method for producing tetrafluoromethane by thermal plasma pyrolysis of waste polytetrafluoroethylene	Zhejiang University   Zhejiang Juhua New Materials Research Institute Co., Ltd
CN220478167U	A chemical steam condensate recovery system	Feiyuan Chemical Company
CN220310107U	A gas phase difluorochloromethane recovery equipment for ice machines	Lanxi Fluorination Company
CN220397851U	Gas thermal oil furnace flue gas waste heat recovery device	Feiyuan Chemical Company
CN115072912B	A combined treatment method for fluororesin production wastewater	Technology Center Company

# Raw Material Management

Juhua Corporation has established a scientific and standardized raw material management system. The marketing department is responsible for coordinating the procurement of bulk raw materials, implementing strategic supplier list management for key raw materials such as fluorite and chlorine gas, and ensuring stable and compliant supply. In terms of raw material selection, the company prioritizes environmentally friendly alternatives and optimizes processes to reduce energy consumption. The key technology development project for efficient utilization of fluorite resources has successfully achieved industrial application of low-grade fluorite (CaF<sub>2</sub> content < 65%), greatly improving resource utilization and achieving significant economic and environmental benefits.

## Management objectives and planning

Juhua Corporation takes "Deep Release of Raw Material Value" as its core strategic pivot, and builds a new paradigm for green and low-carbon transformation in the chemical industry. The company focuses on improving the full lifecycle efficiency of raw materials, achieving gradient utilization of raw material components and directional conversion of by-products. At the same time, we will collaborate to promote the construction of a lightweight packaging ecological closed-loop, promote carbon control throughout the entire industry chain, and form a "zero waste full cycle" production model, providing systematic solutions for the intensive and green transformation of the chemical industry. It is expected that by 2025, the comprehensive utilization rate of fluorine chemical raw materials will increase to 95% (93% in 2024).

## Improve the efficiency of raw material utilization

Juhua Corporation is guided by the core principle of efficient and intensive utilization of resources, relying on technological innovation and full lifecycle management to continuously improve the efficiency of raw material utilization. As a large-scale chemical consortium, the company's various chemical sectors have formed a good industrial chain synergy effect. Chlor alkali chemical supplies liquid chlorine to fluorine chemical industry, and its by-products have become important raw materials for petrochemical industry. At the same time, Juhua Corporation actively promotes the substitution of green raw materials and the application of recycling technology, further improving the utilization rate of raw materials.

## Reduce toxic and harmful substances

The company effectively reduces the environmental release of new pollutants by adopting measures such as green substitution, process emission reduction, and end of pipe treatment. The production process of Jusheng Fluorination Company and the electrochemical plant involving the use of perfluorooctanoic acid (PFOA) has achieved PFOA substitution in all equipment products, and the overall operating effect is good, and the production of PFOA equipment has been stopped.

Due to the fact that the company's main raw materials are basic chemical raw materials such as fluorite, no specific certification has been obtained yet, but all raw material purchases, transportation, storage, and use comply with national standards.



# Social Chapter

## Gathering Strength and Sharing Responsibility, Fulfilling Responsibilities for Long Term Development

As staunch practitioners of social values, we have always deeply integrated the concept of responsibility into the development genes of enterprises, and created shared value through diversified social responsibility practices. In the field of rural revitalization, we implement precise assistance to empower industries and drive regional development. Continuously enhancing people's well-being through social welfare; Building a secure and stable supply chain ecosystem to inject new momentum into the regional economy. At the same time, we adhere to the core concept of "People-Oriented", continuously improve the employee growth system, and ensure professional dignity and happiness. In the journey of high-quality development, we are willing to work together with all partners to build a community of responsibility and create a sustainable future.

### The SDG goals addressed in this chapter



### Important achievements in 2024

- The total investment in charity and public welfare amounts to 3.08 million yuan.
- The total R&D investment is 1,054.15 million yuan
- Safety production investment of 112.06 million yuan
- Accumulated 751 authorized patents, achieved 23 scientific and technological achievements, and participated in the formulation of 12 standards
- Promote sustainable development of suppliers, covering 100% of suppliers
- Customer complaint handling rate of 100%
- The average training hours for occupational health and safety are 24.87 hours per person
- The coverage rate of pension insurance and enterprise annuity is 100%
- Conduct 2,777 employee training sessions, training 73,433 people

# Rural Revitalization and Social Contribution

## Rural Revitalization

Based on the company's resource and capability advantages, Juhua Corporation actively explores long-term mechanisms to support rural revitalization. By implementing diversified measures such as paired assistance, education revitalization, and joint agricultural assistance, we aim to promote industrial upgrading and green economic development, and contribute our own strength to rural revitalization.

### • Deepen paired assistance

Juhua Corporation actively responds to the strategy of rural revitalization and common prosperity in Zhejiang Province, and supports regional development through paired assistance and industrial support. In 2024, the company invested a total of 1.5 million yuan in consolidating and expanding poverty alleviation and rural revitalization, including pairing assistance between the electrification plant and Qujiang District of Quzhou City, Jusheng Fluorination Company and Kecheng District of Quzhou City, and the electrification plant and Quhua Fluorination Company with Zhaojue County of Liangshan Prefecture, Sichuan Province, to support the construction of a demonstration zone for common prosperity.

### • Empowering rural areas with education

The company insists on empowering rural revitalization through education, injecting momentum into rural revitalization by promoting educational equity and cultivating rural talents. Continuously carrying out multiple educational assistance activities, working together with Juhua Group to stand at the forefront of donating funds for education, fully supporting and assisting the development of primary and secondary schools in Quhua area, and improving the quality and level of education.



The company collaborates with Juhua Group to donate funds for educational assistance

### • Agricultural assistance and support activities

To thoroughly implement the national strategic deployment of Zhejiang's high-quality development and construction of a demonstration zone for common prosperity, and to assist in supporting the sales of agricultural products in Xinjiang. In 2024, the Union of Juhua Group purchased more than 15000 boxes of Xinjiang Aksu "Candy Heart" apples through consumption assistance. The company and its subordinate units supported the Union's agricultural product consumption assistance activities, communicated and contacted the agricultural assistance organizing unit to purchase the product, and distributed it to the company's employees, contributing their own strength to the construction of Xinjiang aid.



Agricultural product consumption assistance

## Social Contribution

The company adheres to the concept of organic combination of enterprise development and social responsibility fulfillment, and continues to deepen its cultivation in multiple social welfare fields such as community development, education and assistance, emergency relief, environmental protection, and cultural and sports undertakings. With a sense of responsibility, it gives back to society and illuminates the future with the power of public welfare, contributing solid strength to achieving social harmony and sustainable development.

### • Public safety and emergency assistance

As a large state-owned chemical enterprise, Juhua Corporation always adheres to the responsibility of a state-owned enterprise, actively fulfills social responsibilities, and is committed to safeguarding enterprise safety and regional public safety. The Zhejiang Province Safety Production Emergency Rescue Center, established by the company, has become a professional, efficient, and highly combat effective chemical accident emergency response team in the western Zhejiang region, making important contributions to maintaining enterprise stability and regional security. As of the end of the reporting period, the Emergency Rescue Center has received more than 20 alarms and deployed more than 40 vehicles, effectively ensuring the fire safety of enterprises and surrounding residents in the park and playing a key role in emergency rescue.

#### Case Fire Safety Awareness Month Event

November 9, 2024 is the 33rd National Fire Day, and the theme of the Fire Awareness Month is "National Fire Protection, Life First". The company has carried out various forms of fire safety publicity and education activities, such as fire inspections, emergency drills, and practical training, tailored to local conditions, to further enhance the fire safety awareness of employees, strengthen their self-protection, self rescue, and emergency response capabilities, and prevent and reduce the occurrence of incidents.



Fire safety publicity activities

• Educational assistance

Education is an important cornerstone for national rejuvenation and social progress. Juhua Corporation regards the integration and co construction with schools as an important part of solidly promoting common prosperity, leverages its advantages to implement the "Co-support and Co-prosperity Workshop" action, solidly promotes the development of science and technology in education, cultural empowerment and other work, fully supports and assists the development of primary and secondary schools in Quhua area, and jointly writes a new chapter in education.

Case Innovatively carrying out youth science popularization education practice

The company regularly conducts various science popularization activities in primary and secondary schools in the Quhua area, spreading scientific concepts and innovative spirit in the hearts of every student, guiding them to inherit and promote the spirit of scientists. By organizing science and technology workers to conduct science popularization lectures on campus, offering characteristic science and technology courses, and arranging professional lecturers to teach on campus, we aim to disseminate scientific knowledge to primary and secondary school students and cultivate innovative spirit. At the same time, organize students to visit the production site and send professional personnel to give explanations, stimulate young people's interest in science through diversified science education activities, and help improve scientific literacy.



Company technology workers conduct various science popularization activities in primary and secondary schools in Quhua area



Organize students to enter the factory and company to carry out science popularization activities

• Carry out public welfare service activities

In order to vigorously promote the volunteer spirit of "Dedication, Friendship, Mutual Assistance, and Progress", the company advocates that employees participate in public welfare practices, fulfill social responsibilities, and help build a harmonious community. During the reporting period, the company organized more than 100 young volunteers to carry out multiple volunteer service activities, including youth volunteer service activities, support for voluntary blood donation public welfare undertakings, and various major conference volunteer services, contributing to community safety and harmonious development.

Case

On March 5, 2024, the Youth League Committee of Jinju Chemical Company and Hua'er Community jointly launched the "Spring Breeze Brings Warmth to Learn from Lei Feng, Volunteer Service I Lead" Lei Feng volunteer service activity. Young volunteers have established convenient service projects such as sharpening knives, blood pressure measurement, mobile phone film application, vision examination, glasses cleaning, legal consultation, etc. At the same time, they have carried out special group care actions, helped elderly people living alone in the community clean up, and carried out volunteer actions such as "Protecting Seedlings" in kindergartens. The young volunteers of the company fulfill their social responsibilities and responsibilities, striving to build a new era of youth team with ideals, beliefs, knowledge of technology, innovation, courage to take on responsibilities, and dedication.



Learn from Lei Feng's volunteer service activities

Case

Juhua Corporation actively supports the public welfare cause of voluntary blood donation, and practices corporate social responsibility through practical actions. The company guides cadres and employees who meet the conditions for blood donation to actively participate in voluntary blood donation activities and contribute to social welfare undertakings. Since 2021, its subsidiary Jinju Chemical Company has been awarded the title of "Advanced Organization Unit for Voluntary Blood Donation" by Juhua Group for three consecutive years. More than 100 employees have participated in voluntary blood donation, with a total blood donation volume of 51800 milliliters. In the future, the company will continue to deepen its public welfare practices and contribute to building a harmonious society and promoting human health and well-being.



Voluntary blood donation activity

# Chemical Safety

## • Chemical safety management

The company strictly controls chemical safety, establishes a full lifecycle management system from procurement to disposal, and strengthens the safety production defense line.

The company's chemical safety management establishes a top-down monitoring and management system. The general manager is responsible for overall safety management, the safety and environmental department is responsible for monitoring and managing chemical related hazards, the production and operation department is responsible for supervising and managing the production and use of chemicals, and the marketing center is responsible for sales management of chemicals. In addition, the subsidiary company regularly conducts safety assessments of hazardous chemicals, develops detailed on-site response plans for chemical leakage accidents based on actual production characteristics, establishes emergency teams, allocates corresponding emergency supplies, regularly conducts training on hazardous chemical operations and leakage emergency drills, enhances the company's and employees' ability to respond to hazardous chemical emergencies, and minimizes the harm of accidents.

Juhua Corporation strictly adheres to the "Three Simultaneities" management regulations for safety facilities in hazardous chemical construction projects, enhances the intrinsic safety of the equipment, and controls safety risks from the source. Conduct HAZOP analysis (hazard and operability analysis) for all projects involving "Two key Points and One Major". According to the requirements of the *Detailed Rules for Safety Special Inspection of Major Hazardous Chemical Enterprises*, we will continue to promote the supervision and verification of major hazardous sources, urge subordinate units to implement the problems found during supervision and verification, and carry out rectification work. During the reporting period, the company invested 112064600 yuan in safety production expenses.

## • Chemical management of concern

Juhua Corporation has established a strict chemical management system to ensure compliance with relevant regulations.

### Chemical Legal Compliance

The company identifies and manages controlled substances based on specific business laws and regulations. Controlled substances are identified through the following domestic and foreign laws and regulations:



#### Domestic regulations include

*Regulations on the Safety Management of Hazardous Chemicals, Registration Measures for Environmental Management of New Chemical Substances, Classification and Labelling of Chemicals (GB 30000 series), Catalogue of Hazardous Chemicals Subject to Key Environmental Management, Regulations on the Administration of Precursor Chemicals, List of Explosive-Like Hazardous Chemicals, etc.*



#### International laws and regulations include

*the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the Werner Convention for the Protection of the Ozone Layer etc.*

## Chemical control compliance

The company conducts chemical registration, declaration, and management in accordance with relevant laws and regulations, aiming to reduce the impact on the environment from product development and manufacturing processes.

### Registration and declaration of chemical substances in accordance with specific national/regional regulations:

When managing and reporting the quantity of chemicals produced and imported by the company, new chemical substance environmental management registration is carried out for chemicals that are not listed in the *Inventory of Existing Chemical Substances in China* (IECSC). For chemical substances that have been listed in the *Inventory of Existing Chemical Substances in China* (IECSC) and the *List of Priority Environmental Management Hazardous Chemicals*, the production, import, use, and discharge of chemical substances shall be declared to the ecological environment department annually to confirm that no prohibited or restricted substances have been used.

### Revise Safety Data Sheets (SDS):

The company promptly revises SDS based on chemical updates, regulatory changes, or new safety information to ensure that employees and stakeholders have access to the latest safety information.

## New pollutant treatment

According to the "List of Key Control New Pollutants (2023 Edition)" issued by the Ministry of Ecology and Environment, the environmental risk control pollutants involved in the company (subject to prohibition, restriction, emission limitation and other control measures in accordance with relevant regulations) include three categories: dichloromethane, trichloromethane PFOA. In April 2023, the Quzhou Ecological Environment Bureau designated the company as a pilot enterprise for the treatment of new pollutants in Quzhou City. The pilot work for the treatment of new pollutants is based on the principles of "screening, evaluation and control, prohibition, reduction and treatment", and a task list for the treatment of new pollutants is formulated. Through investigation and evaluation, strengthening process control, deepening end of pipe treatment, and enhancing monitoring capacity construction, the environmental risks of new pollutants are gradually reduced, making positive contributions to the control of environmental and health risks of new pollutants.

## Chemical substance substitution of concern

The company has established a hazard assessment and control system covering the entire lifecycle of chemicals. For all chemicals involved in production, including fluorine chemical raw materials, intermediates, and finished products, 100% hazard identification and classification are implemented in accordance with the GB 30000 series standards.

Continuously monitor the relevant provisions of the EU REACH regulation and replace or phase out chemical substances of concern. Some of the company's fluorinated polymer products may involve PFOA during production. The company actively seeks feasible alternatives and conducts alternative research and development. Currently, the entire production process involving PFOA has achieved PFOA substitution.

We are voluntarily phasing out PFAS (perfluoroalkyl and polyfluoroalkyl substances) in our product formula and actively seeking feasible alternatives. However, the term PFAS encompasses a very broad range of substances, which by definition may involve thousands of different chemicals with significantly different properties and risk characteristics. Therefore, responsible substitution or elimination of PFAS for specific purposes requires a detailed case review of feasible alternatives.

Identifying, testing, and approving alternatives similar to PTFE throughout the industry will require significant time and financial investment. The company submitted a Public Consultation on the Proposal to Restrict Per- and Polyfluoroalkyl Substances (PFAS) under REACH Regulation to ECHA (European Chemicals Agency) in August 2023, actively participating in industry discussions and promoting scientific and reasonable PFAS management policies.

## • Chemical waste management

The hazardous chemicals and other waste generated during the company's production process shall be collected, classified, and temporarily stored in accordance with national hazardous waste management documents and standards, and transferred to qualified third parties for disposal; the company includes industrial solid waste transportation vehicles in the company's logistics loading and trading platform for unified supervision, ensuring that the entire process of solid waste can be monitored, traced, and evaluated.

# Innovation Driven

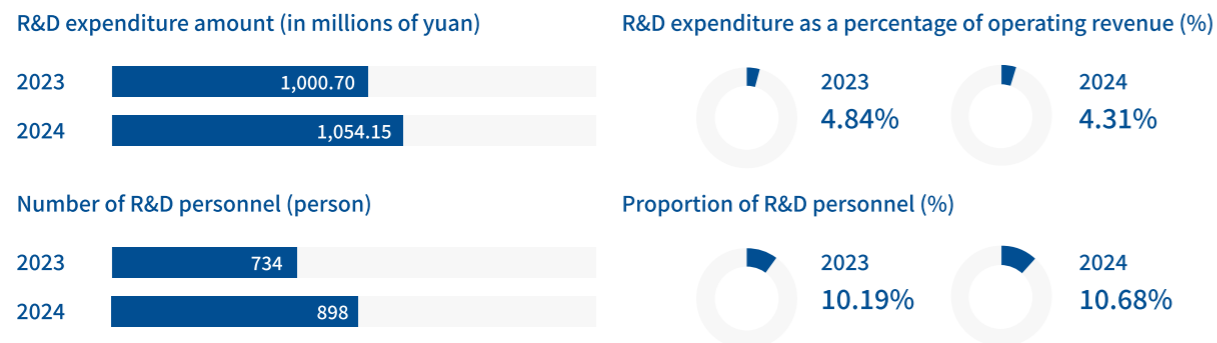
Juhua Corporation regards technological innovation as a key engine driving high-quality development of enterprises, leading industry changes with innovative spirit, shaping the future of enterprises with technological strength, and continuously enhancing the company's core competitiveness. As an important driving force for technological innovation and industrial transformation, the Investment and Development Department is mainly responsible for incubating the company's scientific research achievements, industrializing them, and promoting the application of new technologies. The Investment and Development Department conducts cutting-edge research and product development around different technological fields, regularly evaluates and optimizes research directions, actively promotes cross institutional collaboration, and facilitates the transformation of innovative achievements, providing strong support for the company's sustainable innovation.

The company continues to improve its innovation management system, comprehensively enhancing the research and development management level of its subsidiaries through mechanism optimization, resource guarantee, and assessment incentives. Among them, Quhua Fluorination Company has shown outstanding performance, having been selected as one of the first key pilot units for the Zhejiang Province Innovation Management Intellectual Property International Standard. During the reporting period, it passed the "Innovation and Intellectual Property Management Capability Grading Evaluation Index System Certification" and obtained the "Innovation and Intellectual Property Management Capability" level certificate.



Juhua Corporation implements the new development concept, adheres to scientific development, open development, and integrated development. The company adheres to fluorine chemical industry as the core, takes "Four New" as the direction of industrial transformation and upgrading, accelerates innovation driven and transformation and upgrading, realizes the characteristic park of the industrial base, integrates the industrial chain, and produces high-end, serialized, high-quality, refined, differentiated, and composite products. The company's research and development scope covers areas such as fluorinated materials and ecological products of petrochemical new materials, low GWP new refrigerants, new energy materials, etc., and improves research and development efficiency through digital and intelligent research and development methods. The company drives innovative development with high-level R&D investment, continuously increases R&D investment, strengthens technological reserves, optimizes innovation mechanisms, and seizes new opportunities brought by industry changes.

During the reporting period, the company's R&D expenses and R&D personnel situation:



## Research and development innovation system

The company has a sound R&D system and leading domestic R&D strength in the fluorine chemical industry. There are two national innovation platforms, academician (doctoral) workstations, provincial advanced manufacturing innovation centers, new materials research institutes, low-carbon refrigerant research institutes, experimental factories, joint laboratories of research institutes, research institutions of various subsidiary companies, experimental devices and other technological innovation entities and platforms, forming a company strategic leadership, internal division of labor and external cooperation and collaboration system for technological innovation, and an organic research and development mechanism for industry university research integration.

### Research and Development Cooperation Platform

Cooperation platform	Progress of cooperation
<p><b>National Innovation Platform</b></p>	<p>There are national level enterprise technology centers and national level fluorine material engineering technology research centers, with the fluorine material engineering technology research center serving as the carrier of the enterprise technology center.</p> <p>During the reporting period, we undertook 9 scientific research projects at or above the provincial level (including 2 at the national level) and won 1 provincial (ministerial) level scientific and technological progress award ("Development and Application of High end Polyvinylidene Chloride (Fluorine) Material Green Manufacturing Complete Technology" won the first prize of China Petrochemical Federation Scientific and Technological Progress Award).</p>
<p><b>Academician (PhD) Workstation</b></p>	<p>Focusing closely on the field of fluorine-containing new materials and specialized fluorinated chemicals, we will focus on key technologies and their basic scientific issues, promote the construction of provincial and municipal regional innovation systems, and enhance regional innovation capabilities.</p> <p>The workstation has overcome the complete set of green manufacturing technology for high-end polyvinylidene chloride (fluoride) materials, promoting the development of submerged liquid cooling technology. Academician Wang Xieqing provided professional guidance for the company's catalyst characterization, energy conservation and emission reduction, and carbon capture technology.</p>
<p><b>Industry University Research Cooperation</b></p>	<ol style="list-style-type: none"> <li>① Communicate and collaborate with the academician team of the Provincial High end Chemical Technology Innovation Center for project research and development.</li> <li>② Signed a strategic cooperation agreement with Nanjing University of Technology for industry university research cooperation, established a joint research and development platform, and carried out research and development cooperation in high-efficiency membrane separation technology.</li> <li>③ Participate in the construction of the State Key Laboratory of Green Chemical Synthesis and Transformation Technology of Zhejiang University of Technology, actively promote the application of energy-saving equipment and technologies such as new and efficient thermal insulation materials, electrochemical descaling, high gravity technology, and efficient motors, improve the safe and economic operation of production plants, and reduce material and energy consumption.</li> <li>④ Deepen cooperation with universities and institutions such as Zhejiang University and the Chinese Academy of Sciences, focus on key technologies and core processes such as high-end fluorine-containing new materials, and strengthen the full chain of industry university research cooperation from basic research, high-end testing, technology transfer to industrialization.</li> </ol>



• Research and development goals

The company continues to promote technological innovation and enhance product market competitiveness. By 2025, the proportion of R&D investment to operating revenue (i.e. R&D intensity) of the company is planned to remain above 4%. The company's investment in technology R&D, the number of core patents in the industry, and the proportion of operating revenue from new products or industries will increase year by year. The comprehensive digital reform will lead the industry, and the enterprise's intelligent production level will reach the national first-class level.

• Financial security and innovation incentives

To ensure the smooth progress of research and development work, the company has formulated and implemented the "Management Measures for Scientific Research and Development". By optimizing the funding guarantee mechanism for scientific research projects, the company has established management and evaluation standards for new product research and development projects, ensuring that funds are used exclusively for their intended purpose, effectively promoting the continuous optimization of the company's scientific and technological innovation ecosystem, and laying a solid foundation for the company's technological breakthroughs and sustainable development.

To fully stimulate the vitality of R&D innovation, the company provides sufficient R&D funding support and establishes a special innovation reward fund to enhance employees' innovation awareness for teams or individuals who have made outstanding achievements in key areas such as technology research and development, process optimization, and product innovation. In addition, in terms of talent cultivation, the company actively builds innovation platforms, encourages employees to participate in various innovative projects, and provides them with sufficient resource support. Juhua Corporation also regularly holds innovation training and exchange activities, inviting industry experts to share cutting-edge technologies and innovative concepts, further broadening employees' horizons and stimulating innovative thinking.

• Participated in standard setting during the reporting period

During the reporting period

Company participated in the development of

4 national standards

8 group standards

National standard

- Electronic grade gases - Tetrafluoromethane (GB/T 43976-2024)
- Electronic grade gases - Octafluorocyclobutane (GB/T 43977-2024)
- Energy consumption limits per unit product for sodium hydroxide, polyvinyl chloride resin and chlorinated methanes (GB 21257-2024)
- Technical specification for fluoridation process reengineering intensified by Hige reactor (GB/T 44900-2024)

Group standards

- Requirements for Selection of Immersion Liquid Cooling Fluids (T/CI 393-2024)
- Polytetrafluoroethylene (PTFE) Film for Cable Wrapping (T/SHPTA 073-2024)
- Polychlorotrifluoroethylene (PCTFE) Rods (T/CPPIA 29-2024)
- 2,3,3,3-Tetrafluoropropene (HFO-1234yf) for Automotive Air Conditioning (Aerosol Can Type) (T/CAS 813-2024)
- Perfluorosulfonic Acid Resin for Water Electrolyte Hydrogen Membranes (T/SHPTA 099-2024)
- Guidelines for Safety Risk and Hazard Investigation in Fluorochemical Enterprises (Draft for Approval) (T/FSI 178-2024)
- Safety Production Specifications for Fluorochemical Enterprises (T/FSI 177-2024)
- Technical Specifications for Verification of Ion-Exchange Membrane Caustic Soda Production Using Waste Salt as Raw Material (T/CCASC 0038-2024)



• Research and development progress and achievements

The company continues to strengthen the research and development of advanced fluorine chlorine chemical new materials, new green fluorine refrigerants (foaming agents), fluorine-containing fine chemicals and other new products and applications, as well as the secondary innovation of key industrial technologies, the resource utilization of "Three Wastes" and by-products, advanced energy-saving and environmental protection technologies, and the application research and development of information intelligence technologies. During the reporting period, the completion rate of 13 key research and development projects exceeded the expected targets, and the overall research and development work was efficiently promoted.

The company has achieved a total of 23 scientific and technological innovation achievements, including 7 small-scale trial achievements, 7 pilot achievements, and 9 industrialization achievements; During the reporting period, 104 patents were applied for (including 2 PCT applications), and 87 patents were authorized (including 8 foreign patents); As of the end of the reporting period, the company had a total of 751 valid patents, including 515 invention patents and 50 foreign patents.

During the reporting period, the company received awards for its research and development achievements.

- Development and application of a complete set of green manufacturing technology for high-end polyvinylidene chloride (fluoride) materials
  - Medium resistant peroxysulfide perfluoroether rubber
  - ETFE resin for building membranes
  - Preparation method of peroxyfluororubber for lithium battery packaging
  - Preparation method of ETFE resin for solar backsheet
  - Development project of high-performance perfluorosulfonic acid resin for energy storage flow batteries
- First Prize of China Petrochemical Federation Science and Technology Progress Award
  - Special Prize of China Fluorosilicon Industry Science and Technology Innovation Award
  - First Prize of China Fluorosilicon Industry Science and Technology Innovation Award
  - First Prize of China Fluorosilicon Industry Patent Award
  - Excellent Award of China Fluorosilicon Industry Patent Award
  - First prize in the on-site competition of the first "Navigator Cup" State owned Assets and State owned Enterprises Innovation Competition

Case Immersion Liquid Cooled Data Center Project

This project is one of the important projects for the green, low-carbon, and high-quality development of Juhua's fluorine chemical industry during the "14th Five Year Plan" period. It is a landmark achievement for Juhua's fluorine chemical industry to extend towards terminal, high-end, and specialized development.

In April 2024, the submerged liquid cooled data center project was approved to enter the *List of Demonstration Projects for Green and Low-Carbon Advanced Technologies* jointly released by 10 departments including the National Development and Reform Commission. This project adopts single-phase immersion coolant technology to achieve large-scale preparation. After product iteration and upgrading, it can be promoted to the fields of semiconductors, water-cooled generator sets, and thermal management of new energy vehicle batteries. After the project is completed, it can achieve an annual energy saving of 86% for non IT equipment and an overall energy saving of over 30%. The successful development of the project product has ended the long-standing monopoly of foreign enterprises, filled the gap in high-performance data center specific cooling fluids, semiconductor heat transfer and leak detection working fluids in China, and effectively promoted the leapfrog development of China's energy conservation, emission reduction, carbon reduction and immersion liquid cooling industry.



Immersion cooling liquid demonstration device

**Case** Development and Application Project of High end Polyvinylidene Chloride (Fluorine) Material Green Manufacturing Complete Technology

Polyvinylidene chloride (PTFE), as a national strategic emerging material, is widely used in food and drug packaging, new energy, electronics and electrical fields with excellent comprehensive performance. The "Development and Application of High end Polyvinylidene Chloride (Fluorine) Material Green Manufacturing Complete Technology Project" of Juhua Group relies on the support of national and Zhejiang Province's key research and development plans, and has overcome the difficulties in the development and application of high-end Polyvinylidene Chloride (Fluorine) material green manufacturing complete technology. The company has also independently designed and built over 10 sets of industrial production facilities, with the production capacity of polyvinylidene chloride facilities leading the country. The project has strong originality and advanced overall technology, effectively promoting the development of new materials and equipment in the country, with significant economic, social, and environmental benefits.



**Recognition status of high-tech enterprises, specialized and innovativesmall and medium-sized enterprises, and specialized and innovative small and medium-sized giants**

The company currently has 11 high-tech enterprises	Quhua Fluorination Company	Ningbo Juhua Company	Tianjin Barrier Company	Technology Center Company
	Lanxi Fluorination Company	Juhua Chinlon Company	Jusheng Fluorination Company	Jusu Chemical Company
	Lianzhou Refrigeration Company	Feiyuan Advanced Materials Company	Feiyuan New Materials Company	
The company currently has 6 specialized and innovative small and medium-sized enterprises in Zhejiang Province	Jusu Chemical Company	Jusheng Fluorination Company	Juhua Chinlon Company	
	Lianzhou Refrigeration Company	Lanxi Fluorination Company	Chuangfu High-tech Company	
The company currently has one national level specialized and new "little giant"	Jusheng Fluorination Company.			

**Adhere to scientific ethical norms**

Juhua Corporation is mainly engaged in the research and development, production, and sales of basic chemicals, fluorine chemical products, and new materials. The company's business does not involve technology ethics sensitive fields such as gene editing, artificial intelligence, biotechnology, etc. The research and development activities strictly follow relevant national laws, regulations, and industry standards to ensure the scientificity, compliance, and safety of the research and development process.

# Robust Supply Chain

## Supply Chain Security

The Marketing Department is the centralized management department for the procurement and management of major raw materials, responsible for systematically and standardly managing the construction of responsible supply chains, and promoting the sustainable development of supply chain management. In order to continuously improve the security and economy of the supply chain, ensure stable supply of raw materials, and reduce the risk of supply interruption, the company has formulated the **Management Measures for Bulk Raw Material (Fuel) Procurement and Supply** and **Supplier Management Measures** to identify, evaluate, and respond to various risks that may affect the stability of the supply chain, ensuring that the enterprise can continue to operate and develop in an uncertain environment.

**Supplier employment execution measures**

The company's large-scale raw material (fuel) procurement is carried out in accordance with the **Management Measures for Bulk Raw Materials and Fuels**, fully utilizing the electronic and information platforms confirmed by the company to carry out electronic procurement; The procurement of other materials and services shall be conducted through six methods, including open bidding, open bidding, competitive inquiry and comparison, invitation bidding, competitive negotiation, and direct contracting, in accordance with the Tendering Management Measures.

*The above management measures cover the overall supplier procurement scope of the company.*

**Supplier evaluation and control process**

<p><b>Pre-evaluation and control</b></p> <p>Led by the marketing department, in conjunction with the production and operation department and user units, evaluation and re-evaluation will be conducted. Suppliers who pass the evaluation will be included in the company's list of qualified suppliers for major raw materials (fuel) and will be considered as qualified suppliers of the company. Newly entered suppliers of major raw materials must provide samples and pass quality inspection and trial use. The procurement department will investigate and evaluate their qualifications, production and operation capabilities, and supply capabilities, verify and confirm them, and list them in the company's <b>Major Raw Materials Qualified Supplier List</b>.</p>	<p><b>Supplier re-evaluation</b></p> <p>conducted once a year to comprehensively evaluate the operational status of existing suppliers, including their business qualifications, operational risks, supply capabilities, quality assurance, environmental management, supply performance, corporate culture, and development potential. Suppliers with a comprehensive score higher than 80 points (including 80 points) are considered qualified suppliers, while those with a comprehensive score lower than 80 points are considered unqualified suppliers. Suppliers that are evaluated as unqualified will be removed from the <b>Major Raw Materials Qualified Supplier List</b>.</p>
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**Identification and response to supply chain risks**

Juhua Corporation has established a supplier risk identification and evaluation mechanism, strengthened the identification of supply chain risks, actively established response measures for various risks, and ensured the stable operation of the supply chain.

Risk identification

To ensure the stable operation of the supply chain, the company systematically identifies various potential risks that may affect the stability of the supply chain.

- Under the expectation of carbon peak and carbon neutrality policies, the "Dual Control" of energy has become more stringent, coupled with geopolitical risks, leading to a significant increase in raw material and energy prices, which has a negative impact on the company's production, operation, and performance.
- The instability of market demand, including seasonal demand fluctuations and policy adjustments, may lead to inventory backlog or resource shortages.
- Natural disasters (such as earthquakes, floods, extreme weather, etc.) and policy restrictions (such as holiday travel restrictions, trade barriers, etc.) may cause disruptions to logistics transportation and production activities.
- Supplier related risks include supplier concentration risk, performance risk, stability risk, information asymmetry risk, external environmental risk, etc.

By comprehensively identifying these risks, a foundation can be laid for developing targeted risk management strategies, ensuring the stability, reliability, and sustainability of the supply chain.

Risk assessment and monitoring

Regularly conduct risk assessments, enhance awareness of supply chain risks, and develop corresponding risk management measures based on the assessment results.

Monitor and evaluate the risk response measures implemented, promptly identify and handle risks, and avoid the expansion of risks and their impact on the stability of the supply chain.

Risk response

- Faced with the risks and challenges brought by the rising prices of important raw materials and energy, as well as the "Dual Carbon" policy, the company has taken corresponding measures such as deepening supplier cooperation, optimizing supply and logistics channels, promoting diversified sources of raw materials, implementing price comparison procurement and price verification mechanisms, and strengthening quality control to reduce raw material and logistics costs; At the same time, we will continue to promote the upgrading of the industrial chain towards high-end and green circular directions.
- In response to inventory risks caused by unstable market demand, the company anticipates policy changes, supplier capacity fluctuations, and market demand fluctuations, prepares goods in advance, and avoids resource shortages. Adopting advanced inventory management systems, combined with historical data and market dynamics, predictive analysis is conducted on potential issues such as inventory backlog and transportation delays, and contingency plan adjustments are triggered in advance.
- In response to logistics and transportation issues that may arise from natural disasters and policy restrictions, the company strengthens logistics management, anticipates transportation problems caused by natural disasters, holiday restrictions, etc. in advance, and develops backup transportation plans to ensure smooth logistics.
- In response to supplier related risks, the company strengthens the management of suppliers by regularly evaluating their financial status, production capacity, and delivery performance to ensure their stability and reliability. Strengthen contract management, clarify the responsibilities and obligations of suppliers, implement supplier diversification strategies, establish cooperative relationships with multiple suppliers, avoid excessive reliance on a single supplier, and reduce supply chain concentration risks. Establish close cooperative relationships with suppliers, reduce potential risks, and improve the stability and reliability of the supply chain through information sharing, collaborative management, and other methods. Build an electronic procurement platform to increase procurement transparency.

Through the above supply chain risk management and response measures, the company's supply chain will operate stably in 2024.

CASE Juhua Digital Mall promotes transparency and efficiency in chemical trading

During the reporting period, Juhua Corporation and Wangsheng Business Treasure Company jointly built a new generation of chemical trading digital mall "Juhua Digital Mall", which achieved full process tracking and closed-loop management of "Self ordering - Signing Contracts - Completing Payments - Querying Logistics - Customer Receipt". During the trial operation phase of the mall, the transaction amount of bidding procurement reached 10.35 million yuan, providing platform support for online bidding procurement of bulk raw materials for the company in the future, increasing procurement transparency and competitiveness, and achieving more favorable prices and better services.



Juhua digital mall

Promote sustainable development of suppliers

The company requires suppliers to proactively take on environmental and social responsibilities and contribute to building a sustainable supply chain. Set up a clause in the procurement contract stating that the supplier shall cooperate with the demand for energy conservation, environmental protection, and occupational health and safety requirements. On the basis of not changing the supply price, the supplier shall seek to provide safe and environmentally friendly products and comply with the requirements.

The company will include sustainable development management requirements for suppliers in the cooperation agreement, attach importance to suppliers' investment and performance in environmental, social, and governance aspects, and require suppliers to strengthen their management work in areas such as environment, business ethics, labor and human rights, health and safety. In addition, the company has incorporated clauses such as environmental health and safety, integrity, and responsible supply chain management into the procurement framework contract, covering 100% of suppliers.

To promote the high-quality development of the supply chain, the company and its subsidiaries organize monthly sustainable development training for suppliers, committed to enhancing their comprehensive capabilities in green supply chain, digital supply chain, and collaborative supply chain. The training covers the core concepts of supply chain sustainability, including how to identify and evaluate the environmental impact of the supply chain, as well as how to achieve efficient resource utilization and environmentally friendly development through green procurement and supplier management. Emphasize the importance of information disclosure and continuous improvement, guide suppliers to establish transparent information sharing mechanisms, regularly evaluate their own performance, and develop practical and feasible improvement plans.

## Equal Treatment to Small and Medium-sized Enterprises

Juhua Corporation has always adhered to the principle of fair competition in the market, strictly implemented national policies such as the **Regulations on Guaranteeing Payment of Funds to Small and Medium-Sized Enterprises** in supply chain management, and established a standardized and transparent cooperation mechanism.

In the supplier admission process, the company provides equal opportunities for small and medium-sized enterprises to participate through public bidding, qualification disclosure, and other means; In terms of account period management and payment process, we strictly abide by the contract agreement, timely pay small and medium-sized enterprise funds, ensure no overdue accounts occur, and effectively protect the legitimate rights and interests of small and medium-sized enterprises. The company supports the healthy development of small and medium-sized enterprises through reasonable and compliant payment terms, combined with industry standards and trading habits. Maintaining good cooperative relationships with small and medium-sized enterprises, promoting the sustainable development of the entire industry chain, and laying a solid foundation for building a harmonious and win-win business ecosystem.

During the reporting period

The company did not experience any overdue payments from small and medium-sized enterprises.

# Security and Quality of Product and Service

## • Quality management system and product quality assurance

The production and operation department of the company is responsible for the supervision and inspection of product quality, carrying out product quality and safety management, and preventing product quality and safety risks. The inspection department is responsible for organizing and implementing the product quality supervision and inspection work of the unit, investigating and handling customer quality complaints or external product quality spot checks that fail, and the technical center is commissioned by the production and operation department to conduct supervision, spot checks, and arbitration inspections on the quality of important products of the company.

We attach great importance to the certification of product related systems. Juhua Group has passed the measurement management system certification of GB/T 19022-2003/ISO 10012:2003 **Measurement Management Systems — Requirements for Measurement Processes and Measuring Equipment** and CMS04-2019 **Certification Standard for Measurement Management Systems**. Its subsidiaries, Electrification Plant and Jinju Chemical Company, have passed the ISO 22000 food safety management system certification. All 18 subsidiaries with production activities have obtained the quality management system (ISO 9001) certification.



The company has formulated the **Regulations on Product Quality Supervision and Inspection Management** and established a comprehensive and strict quality management system. From raw material procurement to production process, to final product inspection, every link is finely managed to ensure the stability and reliability of product quality. All products of the company strictly comply with the current effective national standards, industry standards, group standards, and enterprise standards (among which the enterprise standards require stricter requirements than the current national standards). To ensure that product quality meets relevant standard requirements, each secondary unit establishes raw material acceptance standards based on production process requirements to ensure that raw material quality meets standards. In order to meet the special needs of users, the company has increased the quality indicators specified by users on the basis of following existing standards, strictly controlled the production and quality processes, and ensured that the products fully meet the requirements of users.

## During the reporting period

There were no major safety and quality liability accidents related to products and services.

## • After sales service

The company has revised and issued the **Customer and Credit Management Measures**, clarifying that marketing entities should establish a customer service system that is suitable for their own units, in order to improve product, technology, logistics, and other levels. Each subsidiary and sales entity shall establish customer service and complaint related system processes as required.

Juhua Corporation has established multiple channels for customer communication and complaint handling. A unified national service hotline (0570-3098686) has been set up on the official website, managed by dedicated personnel to receive product inquiries and handle complaints from customers. In addition, sales entities of each subsidiary company collect customer complaint information through channels such as unit disciplinary committees, sales personnel, and offices, and promptly handle the complaint process of their own units.

In response to complaints, the company has set a strict 24-hour processing time limit requirement to ensure that complaints are quickly responded to and properly resolved. Once a complaint occurs, the company will immediately activate the emergency mechanism, establish a dedicated quality complaint investigation team, and communicate deeply with customers through various methods such as video conferences and face-to-face communication, quickly identify the root cause, comprehensively analyze the reasons for the problem, and develop practical and feasible rectification measures to meet customers' requirements for product quality. At the same time, the company focuses on continuous interaction with customers and effectively improves service levels.

## During the reporting period

The customer complaint handling rate was **100 %** There were no product recalls

The company is committed to continuously improving its service level and quality. To this end, every year, sales entities of various business units are organized to conduct customer satisfaction surveys through questionnaires, widely collecting customer opinions and suggestions. In response to customer feedback, the company formulates and implements corrective measures, and forms a management loop through customer follow-up to ensure effective resolution of feedback issues. At the same time, the company incorporates customer satisfaction results into the assessment system, making them an important component of the annual performance indicators and enterprise management goals of each business unit.

In 2024, the company's customer satisfaction score increased to 89.73 points, successfully achieving the established goal of customer satisfaction of 85 points or above set by the company.

## • Product honor

"JH Juhua brand®" As a well-known trademark in China, the company has multiple products under its umbrella and has received numerous honors. The "Juhua brand refrigerant" maintains a leading position in the global market share. The new mixed refrigerant product R-495A has obtained ASHRAE certification (American Society of Heating, Refrigerating and Air Conditioning Engineers) certification, R32, R22, and R134a have passed UL certification in the United States, and R134a (pharmaceutical tetrafluoroethane) has obtained a drug registration certificate and DMF filing number in the United States. PTFE dispersion lotion, poly fresh-keeping PVDC fresh-keeping film and poly wrapped fresh PVDC fresh-keeping bag series products have passed the safety certification of the US FDA (US Food and Drug Administration) and the EU (the pass for products to enter the markets of the EU and European trading countries) certification.

The company has obtained 6 "Zhejiang Manufacturing Certification" products: 1,1,1,2-tetrafluoroethane (aerosol tank type), vinylidene chloride copolymer resin, vinylidene chloride copolymer lotion, caprolactam for high-speed spinning nylon-6, octafluorocyclobutane for industrial use, and difluoromethane for industrial use.



Case



In July 2024, the new mixed refrigerant product R-495A, developed by the company's fluorine refrigerant business unit and possessing complete independent intellectual property rights, obtained ASHRAE certification. R-495A is a low GWP mixed refrigerant that can replace R-134a in applications such as automotive air conditioning and heat pumps. It also exhibits excellent energy efficiency, safety, and environmental performance.



R-495A obtained ASHRAE certification

• Products that solve environmental problems

As a leading enterprise in the domestic refrigerant industry, the company has always been committed to the research and innovation of energy-saving, environmental protection, and low-carbon technologies. Its independently developed series of new fluorinated refrigerants, foaming agents, aerosols, and other products not only meet the needs of different customers for low global warming potential (GWP) products, but also make positive contributions to global greenhouse gas emissions reduction, achieving good economic, social, and ecological benefits. At the same time, relying on the advantages of the fluorine chemical industry chain, Juhua Corporation vigorously promotes the development and application of fluorine-containing new materials, and is committed to the research and production of green and environmentally friendly products, which has become the biggest pursuit of the enterprise.

# Data Security and Client Privacy Protection

The company strictly complies with laws and regulations such as the *Cybersecurity Law of the People's Republic of China and the Personal Information Protection Law of the People's Republic of China*, and has established a comprehensive data security management system, committed to protecting the personal information and data security of customers, partners, and employees.

Juhua Corporation has formulated the *Regulations on Network Information Security Management* and the *Measures for the Management of Information Technology in Company* to ensure the implementation of management systems and regulations in various aspects such as information security, network security, and security incidents, and to comprehensively regulate information security related behaviors. The Comprehensive Management Department is responsible for coordinating and promoting various aspects of the company's network security work. Subsidiary companies formulate corresponding information management systems based on actual situations, establish supporting working groups, and lay a good foundation for information security to serve customers at home and abroad. The company's electrochemical plant and Jusu Chemical Company have obtained ISO 27001 information security management system certification.

The company actively takes measures to protect customer privacy, ensuring the security, legality, and transparency of customer information:



### Introducing advanced technology

Adopting advanced data encryption technology to ensure the security of data during transmission and storage, preventing unauthorized access and theft; Introducing secure storage chips and trusted computing technologies to ensure effective protection of personal information during storage and prevent the risk of personal privacy information leakage and tampering.



### User authentication and authorization mechanism

Implement strict user authentication and authorization mechanisms, only authenticated users can access and operate relevant data.



### Data backup and disaster recovery mechanism

To prevent the risk of hacker attacks or accidental damage to information systems, and to ensure the security and reliability of personal information.



### Strengthen security awareness and capabilities

The company regularly provides training to employees on data security, privacy protection, and compliance management to enhance their security awareness and response capabilities. The training content includes basic knowledge of personal privacy and data security, covering core concepts such as data protection, data privacy, data integrity, data confidentiality, and data availability.

During the reporting period

There were no incidents of data security breaches or customer privacy breaches

# Employee

Juhua Corporation regards employees and talents as the core competitiveness of enterprise development, and strives to create an equal, inclusive, and enterprising career development platform for employees. The company has established a comprehensive talent training system and set up scientific promotion channels to inject continuous power into the sustainable development of the enterprise, striving to achieve common growth and progress between talents and the enterprise.

## Diversification and Equal Opportunities

The company strictly abides by the laws and regulations applicable to its operations both domestically and internationally, such as *the Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and the *Civil Code of the People's Republic of China*. At the same time, it refers to relevant international norms such as the International Labour Organization (ILO) conventions to standardize the management of recruitment and dismissal, salary and promotion, and safeguard the legitimate rights and interests of employees. The company has formulated systems such as the *Employee Assessment and Holiday Management Measures*, *Company Salary and Performance Management Measures*, *Labor Employment Management Measures*, and *Employee Reward and Punishment Management Measures*, adhering to the principles of open recruitment and non discrimination, and striving to create an equal and diverse working environment.

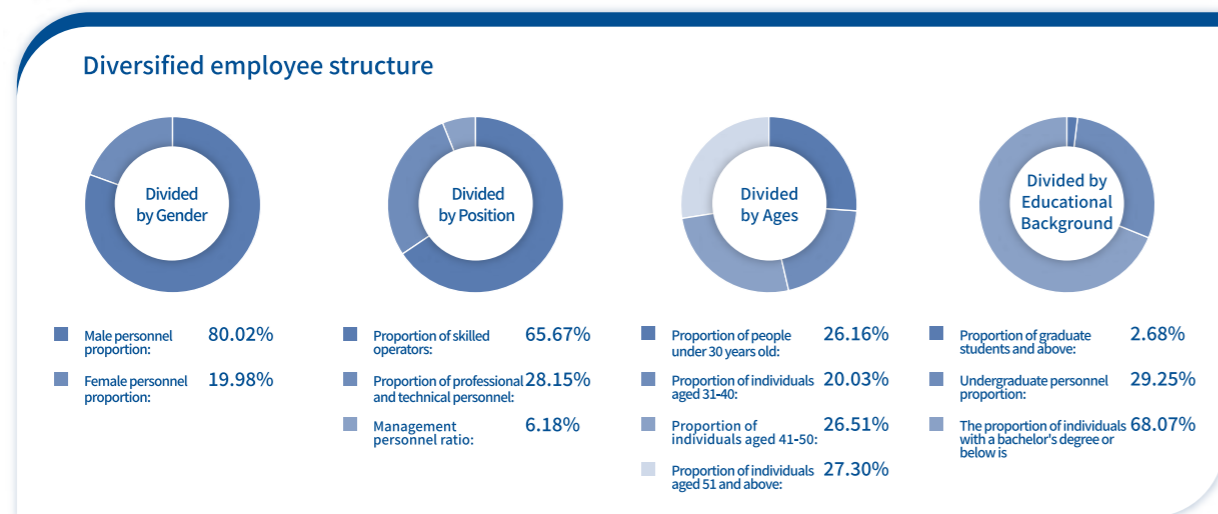
As of the end of the reporting period

Number of employees in the company **8409**

During the reporting period



The company has not engaged in any violations such as hiring child labor or forced labor



### Case Focus on employment for people with disabilities

As a company committed to social responsibility, the company focuses on the employment issues of people with disabilities. By formulating reasonable employment policies, providing equal employment opportunities and suitable job positions, encouraging and guiding people with disabilities to integrate into enterprises and realize their own value. In recruitment, training, promotion and other aspects, the company provides appropriate attention and support to people with disabilities to ensure that they can have fair development opportunities in the enterprise. During the reporting period, Juhua Co., Ltd. and its subordinate electrochemical plants, Jinju Chemical Co., Ltd., Juhua Nylon Co., Ltd. and Jusu Chemical Co., Ltd. were awarded the title of "Exemplary Organization for Proportional Employment in 2023" by Quzhou Disabled Persons' Federation.



## Occupational Health and Safety

Juhua Corporation regards employee safety as the cornerstone of enterprise development, adheres to the concept of "Safety First, Prevention Oriented", comprehensively constructs a sound safety management system, strengthens occupational health barriers through a dual approach of "Technical Defense + Human Defense", continuously carries out safety training and education, fundamentally improves the enterprise's safety management system and safety management capabilities, and effectively prevents and resolves major safety risks.

### Occupational health and safety management system

The company strictly abides by regulations such as the *Work Safety Law of the People's Republic of China* and the *Law on the Prevention and Treatment of Occupational Diseases of the People's Republic of China*. It has formulated institutional documents such as the *Occupational Health Management Regulations* and the *Labor Protection Equipment Management Regulations*, established a strict safety responsibility system, clarified the responsibilities of the safety and environmental department, formulated annual safety production responsibility goals and daily management work mechanisms, and signed *Safety Responsibility Agreements* at different levels to ensure the achievement of occupational health and safety goals. Key risks are implemented to individuals and responsibilities are in place. As of the end of the reporting period, 19 subsidiary companies have passed the certification of Occupational Health and Safety Management System (OHSAS19001/ISO15001).



The company always adheres to the safety concept of "Zero Accidents and Zero Injuries", and through multiple measures, comprehensively constructs a safety production management system to create a safe, healthy, and harmonious working environment for employees. We have established a comprehensive safety production responsibility system, decomposing safety objectives layer by layer to various departments and positions, and ensuring that responsibilities are assigned to individuals through graded signing of Safety Responsibility Agreements, effectively achieving full coverage of safety responsibilities and no blind spots. At the same time, we will strengthen the management of safety production objectives, empower safety management with technological innovation, cultivate a safety culture that involves all employees, and comprehensively enhance the intrinsic safety level of the enterprise.

During the reporting period

There were no occurrences of occupational diseases in the company

0 Casualty

The company clarifies the safety responsibilities of each department and responsible person at all levels to ensure the orderly implementation of hazard investigation and control work. The Safety and Environmental Protection Department is responsible for the supervision and assessment of safety risk prevention and control work, and regularly hires external qualified experts to conduct special safety inspections and guidance, timely discovering and handling hidden dangers, and comprehensively ensuring safety production. In 2024, the company and its subordinate units will comprehensively strengthen the investigation and management of hidden dangers. Through regular on-site inspections, quarterly inspections, and special supervision, more than 5000 problems and hidden dangers have been discovered and rectified, all of which have achieved closed-loop management.

Occupational health and safety protection

As a chemical enterprise, Juhua Corporation's production and operation have typical industry risk characteristics such as high temperature and high pressure, flammability and explosiveness, toxicity and harm. In response to potential management oversights and unexpected safety hazards in the production process, the company identifies potential safety production risks and develops control measures accordingly.

The company always adheres to the business policy of "People-Oriented", establishes bottom line management thinking, improves the integrated management system of quality, environment, occupational health and safety, and implements risk management throughout the entire process from project construction to production and sales. Conduct dynamic risk assessments for all hazardous locations and strengthen on-site management. Relying on intelligent monitoring equipment and process upgrades, continuously optimize the environmental quality of the workplace. Focusing on precise prevention and control of hazardous factors such as dust, toxins, and noise, and building a solid occupational health barrier through a dual approach of "Technical Defense + Human Defense". Strengthen the dual dimensional training system of "Theory + Practice" and standardize the safety operation behavior of employees. Equip sufficient and effective protective equipment in the workplace, and achieve a 100% compliance rate and utilization rate of protective equipment for key positions. Improve emergency plans, emergency response mechanisms, strengthen employee training, etc., to achieve coordinated development of safety, environmental protection, and production and operation.

During the reporting period

During the reporting period, the coverage rate of the company's work-related injury insurance, high-risk enterprise safety production liability insurance, and health examination reached

100 %

Occupational health and safety training activities

The company enhances employees' safety awareness and emergency response capabilities through continuous safety training and education, ensuring that every employee can work in a safe environment. In addition, the company has established an "E-safety Learning Module" on the Juhua e-site, conducting warning education on historical accident cases in the form of a "This Week in History" column, and conducting online learning and testing of important safety management documents issued by the company and superiors. As of the end of the reporting period, over 95% of the personnel participated in learning and testing, further strengthening their safety awareness.



Safety management training

During the reporting period

Participation in continuing education and training of safety production management personnel of the company	Participation in review training of special operation permit	Participation in the initial certification training of special operation certificate	Participation in online staff safety training	Average class hour
820 Participants	653 Participants	435 Participants	5,405 Participants	24.87 Hours per participant

Talent Cultivation and Development

Employee development

The company attaches great importance to the cultivation and development of employees, and has established a comprehensive training system covering skills, professionalism, and leadership, committed to improving employees' overall quality and core competitiveness. Equipped with a professional training team, carefully designed and implemented training programs to ensure that the training content is closely aligned with business needs and company strategic goals. By strengthening employee training and development, promoting the continuous improvement of employee abilities, and supporting the achievement of the company's strategic goals.

Employee Development and Training System

UNIVERSAL POWER	
<p><b>TRAINING MECHANISM</b></p> <p>Establish a systematic and hierarchical new employee training mechanism and training system to help new employees grow and develop rapidly.</p>	<p><b>CULTIVATION METHOD</b></p> <p>Establish a reward mechanism to actively encourage employees to learn independently and stimulate their enthusiasm for learning. At the same time, new employee onboarding training, employee integrity training, information security and other training activities will be carried out to provide employees with comprehensive learning and development support. We also provide personalized career planning guidance for employees, helping them clarify their career development direction.</p>
PROFESSIONAL COMPETENCE	
<p><b>TRAINING MECHANISM</b></p> <p>Customize courses and conduct training based on job technical requirements to enhance employees' professional and technical abilities.</p>	<p><b>CULTIVATION METHOD</b></p> <p>Develop various forms of training activities, including job training, skills training, management training, etc., to provide comprehensive learning and development support for employees, with training covering all employees.</p>
LEADERSHIP	
<p><b>TRAINING MECHANISM</b></p> <p>Customize leadership training for different positions.</p>	<p><b>CULTURE METHOD</b></p> <p>The company continuously establishes and improves a normalized mechanism for tracking and training cadres throughout the entire cycle, carries out various types of training such as digital transformation and process change, and strengthens cadre education and training through multiple channels, at a deep level, and in all aspects.</p>

Case Model Worker Innovation Studio Helps New Employees Grow



The company's model worker studio aims to provide training and communication between technical personnel and employees, helping them quickly grow into the talents needed for the company's development. In May 2024, the trade union of the Fluoropolymer Division launched a series of activities called "Model Worker Month" with the theme of "New Journey of Labor Advancement", promoting the skill improvement and high-quality development of industrial workers from multiple dimensions. By holding the 9th Employee Technology Competition, organizing 4 sessions of the "Fluoropolymer Lecture Hall" Model Worker and Craftsman Special Session, 9 practical training sessions, and online theoretical question bank check-in activities, we have comprehensively built an integrated training system for "Learning and Practice Competitions", promoting employees to gradually grow into technical backbones that meet the company's development needs, and providing strong technical support for the development of the business unit.



Training activities

During the reporting period

The company organized training **2,777** sessions      Training **73,433** attendees      A training coverage rate of **100 %**

• Talent cultivation

The company adheres to the development strategy of strengthening the enterprise through talent and innovation, taking the creation of a transformational organization as the starting point. By innovating various talent training methods and continuously leveraging the role of professional talents, the company injects a continuous stream of momentum into opening up new fields and tracks for development.

PERSONNEL TRAINING SYSTEM

Cultivation mechanism	Cultivation method
<b>H-SHAPED DEVELOPMENT CHANNEL</b>	The company closely integrates organizational change goals with employee career development goals through the implementation of the "Job Connect" talent training project. By positively motivating employees to learn technology and skills, the company effectively improves their overall quality and provides strong talent support for Juhua to accelerate business restructuring, system reshaping, and organizational change.
<b>THE "SMART JUHUA" PROJECT</b>	By implementing major talent introduction projects, "Talent Introduction" and "Elite Students from Prestigious Universities" projects, we aim to accurately utilize talents around these projects and promote the "Talent Cultivation Project". The company and various secondary units form a strategic excavation team to select high potential talents with a sense of mission from all levels to enrich the team. Through a combination of training and combat, we accelerate the cultivation of outstanding talents and experts, and bravely undertake important responsibilities such as strategic implementation, cultural guidance, business empowerment, closed-loop improvement, and talent cultivation.
<b>PLATFORM RETAINS TALENT AND ENCOURAGES TALENT</b>	Through platforms such as training bases and model worker innovation studios, diverse training courses are provided to enhance employee skills.

• Promotion of positions

The company innovatively builds a three channel promotion system of "Business Management, Professional Technology, and Production Operations", and ensures that employees in all sequences enjoy equal promotion rights and development resource support through horizontal and vertical career path design. Juhua Corporation has improved its personnel promotion and demotion procedures based on the job rank system and business development needs. In principle, personnel promotion should meet the qualifications for the position and be promoted step by step. Those who are particularly outstanding may be promoted beyond their level.

The company regularly and fairly conducts promotion work for employees at all levels every year, and discloses promotion policies to the company's management and various departments, including promotion nomination conditions, promotion processes, and promotion evaluation mechanisms. The promotion results are publicized to ensure the fairness and impartiality of the promotion process.



Employee Rights and Benefits

• Employee rights protection

The company creates a fair and just salary policy and system for all employees, establishes a salary incentive system that conforms to the "One Giant" values, meets the company's future strategic development requirements, enhances the competitiveness of the salary market, tilts towards key businesses and abilities, and links employee performance with the overall business results of the company. The salary structure of Juhua Corporation consists of five units: basic salary, performance-based salary, allowances and subsidies, special rewards, and medium - to long-term incentives, and includes year-end bonuses, performance bonuses, etc. The company regularly conducts comprehensive evaluations of all employees who should receive regular performance and career development assessments based on their performance, work ability, potential, and training development, and adjusts their salaries according to the evaluation results.

The company adheres to the principle of "Equal Pay for Equal Work" and determines salaries based on factors such as employees' professional knowledge, skills, and job responsibilities. The salaries do not differ based on gender, ethnicity, religion, political stance, marriage and childbearing status, and the basic salaries provided to employees are higher than the local minimum wage standard.

The company strictly abides by relevant laws and regulations, closely tracks local regulations and various management requirements, and comprehensively safeguards the legitimate rights and interests of employees. Strictly protect employees' employment and rest rights, advocate efficient completion of job duties within 8 hours, do not encourage overtime, do not force labor (work), and employees will be arranged for compensatory leave or overtime pay after overtime.

• Employee communication and communication channels

We have established a union organization that covers all employees, and through union interviews and democratic discussions, we can timely understand the ideological dynamics of employees, effectively solve their difficulties in work and life, and better promote democratic management work. The company respects women's rights, and the labor union organizations of the affiliated companies have established committees for female workers, which are responsible for safeguarding the rights and interests of female workers.



**Case Democratic Consultation Meeting Makes Employees Speak Out with Echoes**

The company responds to employees' voices and stimulates their enthusiasm for participating in company management through forms such as employee representative conferences and democratic discussions. During the reporting period, the trade union of the Fluorine Refrigerant Division held two democratic symposiums, collecting 87 opinions and suggestions from employees, implementing and resolving 85 suggestions, and providing feedback to superiors on 2 suggestions, with a completion rate of 100%. The workers' congress and democratic consultation have effectively built a two-way communication bridge between enterprises and employees, promoting the harmonious, healthy and high-quality development of the company.



Democratic consultative conference

**Employee benefits and care**

Juhua Corporation regards its employees as the most valuable asset and has established a welfare system that combines comprehensive protection and multi-dimensional growth. All employees of the company are entitled to statutory holidays, six insurances and two funds, and other statutory welfare items. In addition, the company also distributes holiday benefits to employees, provides well-equipped apartments for out of town employees, paid annual leave, public medical treatment and other benefits. Special allowances and rest breaks are provided to employees working under special working conditions such as night shifts, high temperatures, and toxic and harmful environments. Lunch and heatstroke prevention expenses are established for employees. Female employees are entitled to maternity leave, breastfeeding leave, and regular gynecological examinations in accordance with the law.

**During the reporting period**



The coverage rate of the company's pension insurance and enterprise annuity reached **100%**



Employee birthday party event



Youth home activities



Fluoropolymer business unit walking activity



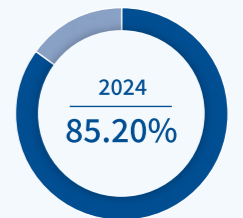
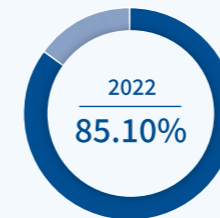
March 8th festival event of Jinju chemical company

**Enhance employee satisfaction**

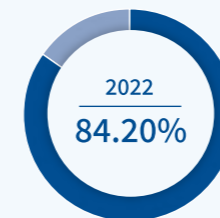
Driven by various measures such as continuously optimizing the working environment, improving the welfare system, strengthening employee care, and promoting career development support, the company has achieved a steady increase in employee satisfaction.



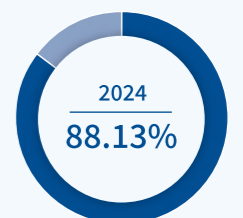
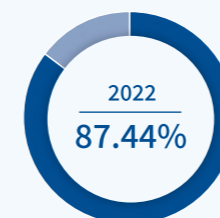
**MANAGEMENT PERSONNEL SATISFACTION**



**GRASSROOTS EMPLOYEE SATISFACTION**



**CULTURAL IDENTITY SURVEY**



# Appendix

## Key Performance Table

### Economic indicators

Index	Unit	2024
Operating Revenue	One hundred million yuan	244.62
Main Business Revenue	One hundred million yuan	207.63
Total Assets	One hundred million yuan	279.14
Net profit attributable to shareholders of the listed company	One hundred million yuan	19.60
Total amount of taxes and fees	One hundred million yuan	5.12
Asset Liability Ratio	%	31.25
Weighted Average Return on Equity	%	11.59
Cash Dividend	Ten thousand yuan	29,697.21
Social contribution value per share	Yuan	1.71

### Environmental dimension

Issues	Indicators	Unit	2024
Response to climate change	Total Greenhouse gas emissions <sup>1</sup> (Scope 1 and Scope 2)	Metric tons of carbon dioxide equivalent	6,418,009.70
	Scope 1 Greenhouse gas emissions <sup>1</sup>	Metric tons of carbon dioxide equivalent	3,154,502.34
	Scope 2 Greenhouse gas emissions <sup>1</sup>	Metric tons of carbon dioxide equivalent	3,263,507.33
	Total greenhouse gas emissions per million revenue (Scope 1 and Scope 2)	Ton of carbon dioxide equivalent/million yuan	262.36
Environmental compliance management	Total investment in environmental protection	Ten thousand yuan	24,000
	Proportion of total investment in environmental protection to operating revenue	%	0.98
Pollutant emission	chemical oxygen demand	Ton	271.70
	Ammonia nitrogen	Ton	12.07
	sulfur dioxide	Ton	38.09
	Nitrogen oxides	Ton	135.21
	Wastewater discharge volume	Ton	5,864,578.00
	Number of environmental administrative penalties	Times	0
	Environmental administrative penalty amount	Ten thousand yuan	0

Issues	Indicators	Unit	2024
Waste Disposal	Hazardous waste generation <sup>2</sup>	Ton	23,496.81
	Intensity of hazardous waste discharge	Kilogram per 10000 yuan of total industrial output value	11.82
	The amount of harmless waste generated <sup>3</sup>	Ton	826,825.43
	Intensity of harmless waste discharge	Kilogram per 10000 yuan of total industrial output value	457.85
Energy utilization	Total direct energy consumption (excluding raw material usage)	10 <sup>4</sup> tons of standard coal	11.94
	Total indirect energy consumption	10 <sup>4</sup> tons of standard coal	135.46
	Coal	Ton	506,253.00
	Natural gas (gaseous)	10 <sup>4</sup> cubic meters	9,822.00
	Gasoline	Ton	8.00
	Diesel	Ton	4.00
	Heat	MkJ	14,083,543.00
	Electricity	10 <sup>4</sup> kilowatt hours	307,887.50
	Lubricant	Ton	94.00
	Total energy consumption intensity	Ton of standard coal/10000 yuan revenue	0.60
	Proportion of clean energy usage	%	19.50
Water resources utilization	Total water consumption	10 <sup>4</sup> cubic meters	1,305.81
	Unit revenue water consumption	Revenue per ton/10000 yuan	5.34
Circular economy	Comprehensive utilization of general solid waste	Ton	796,485.34
	Comprehensive utilization rate of general waste solid waste	%	96.46

Note1: The enterprises above designated size within the statistical scope include: sulfuric acid plant, electrochemical plant, Juhua Nylon Company, Jusu Chemical Company, Tianjin Bairui Company, Quhua Fluorination Company, Chuangfu High tech Company, Fluorine New Chemical Company, Jusheng Fluorination Company, Lianzhou Refrigeration Company, Ningbo Juhua Company, Lanxi Fluorination Company, Jinju Chemical Company, Global Fluorine Company and Feiyuan Chemical Company.

Note 2: The statistical caliber of hazardous waste refers to the hazardous waste generated during the production and operation process of the company.

Note 3: The statistical caliber of harmless waste refers to the solid waste generated during the production and operation process of the company.

### Social dimension

Issues	Indicators	Unit	2024
Rural Revitalization and Social Contribution	The total amount invested in charity and public welfare	Ten thousand yuan	308.00
	The amount of investment in rural revitalization	Ten thousand yuan	150.00
	Total number of employees participating in public welfare and charity projects/volunteerservice	Ten thousand yuan	100
Innovation driven	Number of newly authorized patents in 2024	Piece	87
	Accumulated number of authorized patents	Piece	751

Note4: The amount of charitable and public welfare investment is mainly used for poverty alleviation and rural revitalization, supporting education development, environmental protection and charitable donations through the Charity Federation, of which the amount of poverty alleviation and rural revitalization investment is 1.5 million.

Issues	Indicators	Unit	2024
Innovation driven	Total number of valid patents	Piece	751
	The number of invention patents applied to the main business	Piece	87
	Number of software copyrights	Piece	0
	Number of intellectual property infringement incidents	Piece	0
	Research and development funding investment	Million yuan	1,054.15
	Proportion of R&D capital investment to main business revenue	%	4.31
	Number of R&D team members	Member	898
	The proportion of R&D team members to the total number of employees	%	10.68
Supply chain security	Total number of cooperative suppliers	Number	3183
	Number of suppliers in Chinese Mainland	Number	3163
	Number of suppliers in Hong Kong, Macau, and Taiwan, China	Number	3
	Number of overseas suppliers	Number	17
	Number of suppliers conducting evaluations	Number	160
	Proportion of suppliers who have signed integrity agreements	%	100
Safety and Quality of Product and Service	Number of customer complaints	Piece	35
	Customer complaint handling rate	%	100
	Customer satisfaction	%	89.73
	Number of customer service training sessions conducted	Times	14
	Number of customer service training sessions	Session	200
	Major product and service safety and quality liability accidents occur	Piece	0
Data Security and Customer Privacy Protection	Number of complaints received from customers regarding data and privacy security	Piece	0
	Number of customer data leakage incidents	Piece	0
	Total number of information security training sessions	Session	1
	Number of Information Security Training Participants	Participant	50
	Data security incident occurred	Piece	0
Employee	Employment absorption	People	367
	Number of flexible employment positions	Position	0
	Total number of employees	People	8,409
	Number of full-time employees	People	8,409
	Number of part-time employees	People	0

Issues	Indicators	Unit	2024
Employee	Number of male employees	People	6,729
	Number of female employees	People	1,680
	Number of skilled operators	People	5,522
	Number of professional technical personnel	People	2,367
	Number of management personnel	People	520
	Number of employees under 30 years old	People	2,200
	Number of employees aged 31-40 at the end of the period	People	1,684
	Number of employees aged 41-50	People	2,229
	Number of employees aged 51 and above	People	2,296
	Labor contract signing rate	%	100
	Social insurance coverage rate	%	100
	Per capita paid vacation days	Day	15
	Employee turnover rate	%	2.00
	Number of labor disputes	Piece	0
	Training sessions	Session	2,777
	Number of trainees	People	73,433
	Training coverage rate	%	100
	Investment in safety production	Ten thousand yuan	11,206.46
	Number of work-related accidents	Piece	0
	Number of deaths due to work-related reasons	People	0
Death rate due to work-related reasons	%	0	
Number of working days lost due to work-related accidents	Day	0	
Occupational disease incidence rate	%	0	
Million hour injury rate	%	0	
The investment amount of employee work-related injury insurance	Million yuan	1,800.50	
Coverage rate of employee work-related injury insurance	%	100	
The investment amount of employee safety production liability insurance	Million yuan	190.60	
Coverage rate of employee safety production liability insurance	%	100	
Coverage rate of employee health check ups	%	100	
Per capita safety training duration	Hour	24.87	

Sustainable development related governance dimensions

Issues	Indicators	Unit	2024
Anti commercial bribery and anti-corruption	The total number of directors who have received anti commercial bribery and anti-corruption training	People	12
	The proportion of directors who have received anti commercial bribery and anti-corruption training	%	100
	The total number of management personnel who have received anti commercial bribery and anti-corruption training	People	520
	Proportion of management personnel who have received anti commercial bribery and anti-corruption training	%	100
	The total number of employees who received anti commercial bribery and anti-corruption training	People	7,889
	The proportion of employees who have received anti commercial bribery and anti-corruption training	%	100

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## Reader Feedback

Dear readers:

Thank you for reading the Sustainability Report of Zhejiang Juhua Co., Ltd in 2024. In order to improve the content and format of our report and enhance the quality of information disclosure, we sincerely invite you to fill out the following feedback form. Your valuable opinions and suggestions will help us continuously optimize and improve our ESG responsibility management level.

### 1. What is your overall evaluation of this report

Very good  Good  Fair  Poor  Very poor

### 2. Do you think this report can reflect the significant impact of the company on the economy, society, and environment?

Yes  No

### 3. What do you think of the clarity, accuracy, and completeness of the information, data, and indicators disclosed in this report?

Very good  Good  Fair  Poor  Very poor

### 4. How do you think this report contributes to the communication between the company and stakeholders?

Very good  Good  Fair  Poor  Very poor

### 5. What do you think of the content structure arrangement of this report?

Very good  Good  Fair  Poor  Very poor

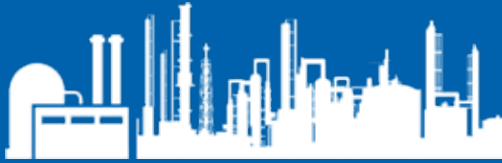
### 6. What do you think of the layout and presentation design of this report?

Very good  Good  Fair  Poor  Very poor

### 7. What other opinions and suggestions do you have regarding the sustainable development work of Zhejiang Juhua Co., Ltd?

### 8. What suggestions do you have for us to prepare the Sustainability Report in the future?

Please fill out this form and send an email to [jhgf@juhua.com](mailto:jhgf@juhua.com) Thank you again for your trust and support!



Create value and Give back to society



**More information**

This report can be found on the company's official website (<http://www.jhgf.com.cn>)

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