2024 Environmental, Social and Governance (ESG) Report

Advancing Chemistry, Transforming Lives

Wanhua Chemical Group Co., Ltd.
YANTAI April 2025

Instructions

Overview

Wanhua Chemical Group Co., Ltd. has been publishing Annual Responsibility Care Reports since 2009 and began releasing Sustainable Development Reports based on GRI Standards in 2017. In 2023, the Company published its first Environmental, Social and Governance (ESG) Report.

This Report, adhering to the principles of objectivity, standardization, transparency and comprehensiveness, provides our stakeholders with detailed disclosure of Wanhua Chemical's sustainable development practices and performance in the dimensions across the environmental, social and governance dimensions from January 1, 2024, to December 31, 2024. To enhance comparability and completeness of the Report, certain content of this Report appropriately traces back to previous years.

Reporting Standards

This Report complies with the requirements of the Guidelines No.14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies - Sustainability Report (Trial).

- It is prepared with reference to the Sustainable Development Report Standards (GRI Standards) of Global Reporting Initiative (hereinafter referred to as "GRI");
- It refers to the Ten Principles of the United Nations Global Compact and the United Nations 2030 Sustainable Development Goals (SDGs);
- It is prepared with reference to the Sustainability Accounting Standards Board (hereinafter referred to as "SASB") and the Task Force on Climate-related Financial Disclosures (hereinafter referred to as "TCFD") framework.

Data Source

The financial data in this Report comes from the 2024 Annual Report of Wanhua Chemical Group Co., Ltd. independently audited by Ernst & Young Hua Ming LLP. Other non-financial information is provided by the functional departments of headquarters of Wanhua Chemical Group Co., Ltd. and its various branches.

Unless otherwise specified, the amounts shown in this Report are presented in RMB.

Scope of Report

The financial data in this Report is disclosed according to the Company's 2024 Annual Financial Statements, while social and governance-related data covers global business activities. Considering that environmental performance data is significantly influenced by differences in global policies and regulations, this report primarily discloses data related to production bases in China, with overseas environmental performance being subject to local disclosure information.

Description of Reference

For ease of expression and reading, in this Report, unless the context indicates otherwise, "Wanhua Chemical Group Co., Ltd." and its subsidiaries are also referred to as "Wanhua Chemical", "Wanhua", "the Company", or "we".

Report Acquisition

This Report is published in both Chinese and English format as a printed version and an online electronic version. The electronic version can be accessed and downloaded from the Company's website https://en.whchem.com/.

If not necessary, please try to use electronic version to save resources and protect our planet.

If you have any questions or suggestions regarding Wanhua Chemical's sustainable development work or report, please call 400-960-0309 to reach Wanhua Chemical's Marketing Department.

CONTENTS

Letter from the Chairman

Transformation, for A Brighter Future

Looking back on 2024, all Wanhua Chemical colleagues embraced the new vision of "To become an innovative, world-leading chemical company, admired by our employees and respected by the community", achieving significant progress.

This year, we seized opportunities and advanced our development in digitalization and intelligence. Several production facilities achieved autonomous operation, predictive maintenance projects for equipment were successfully piloted across multiple sites, and the research institute completed its first batch of AI for Science projects. The rapid development of AI has unlocked infinite possibilities for industrial progress.

This year, we have been deeply engaged in innovation, achieving breakthroughs in battery cathode and anode materials, PU manufacturing technology, and high-end optical material technologies such as XDI, MS, and high-refractive-index PC. We have also developed new products like nylon 12 elastomers, polysulfone, and XDO. In addition, we continuously explore new fields such as synthetic biology, electrochemistry, and other cutting-edge technologies.

This year, we elevated industrial development to new heights. We achieved a complete industrial chain layout for battery positive electrode materials, laying a solid foundation for future business. Phase I of the Penglai Industrial Park has been completed and put into operation, while the construction of the ethylene phase II project has progressed steadily. Additionally, a range of proprietary technologies, including POE, green PO, and citral, have been successfully industrialized.

This year, we focused on customer orientation and enhanced the global reputation of the Wanhua Chemical brand. We delivered the best products, exceptional service, and diverse solutions to exceed the expectations of our global partners. We expanded our global reach and built a more sustainable and resilient supply chain to quickly respond to customers' requests from every corner of the world.

In 2024, all employees remained steadfast in their roles, worked with dedication, and pursued excellence. The success of Wanhua Chemical is built on the contributions and efforts of every individual.

2025 is coming, challenges remain ahead. We will enhance operational efficiency and product competitiveness, defining the management theme for 2025 as the "Year of Transformation". Our focus will shift from investment-driven to business-driven strategies. We will optimize organizational structures to improve efficiency and strengthen value creation and performance orientation, fully unlocking the enthusiasm and creativity of all employees.

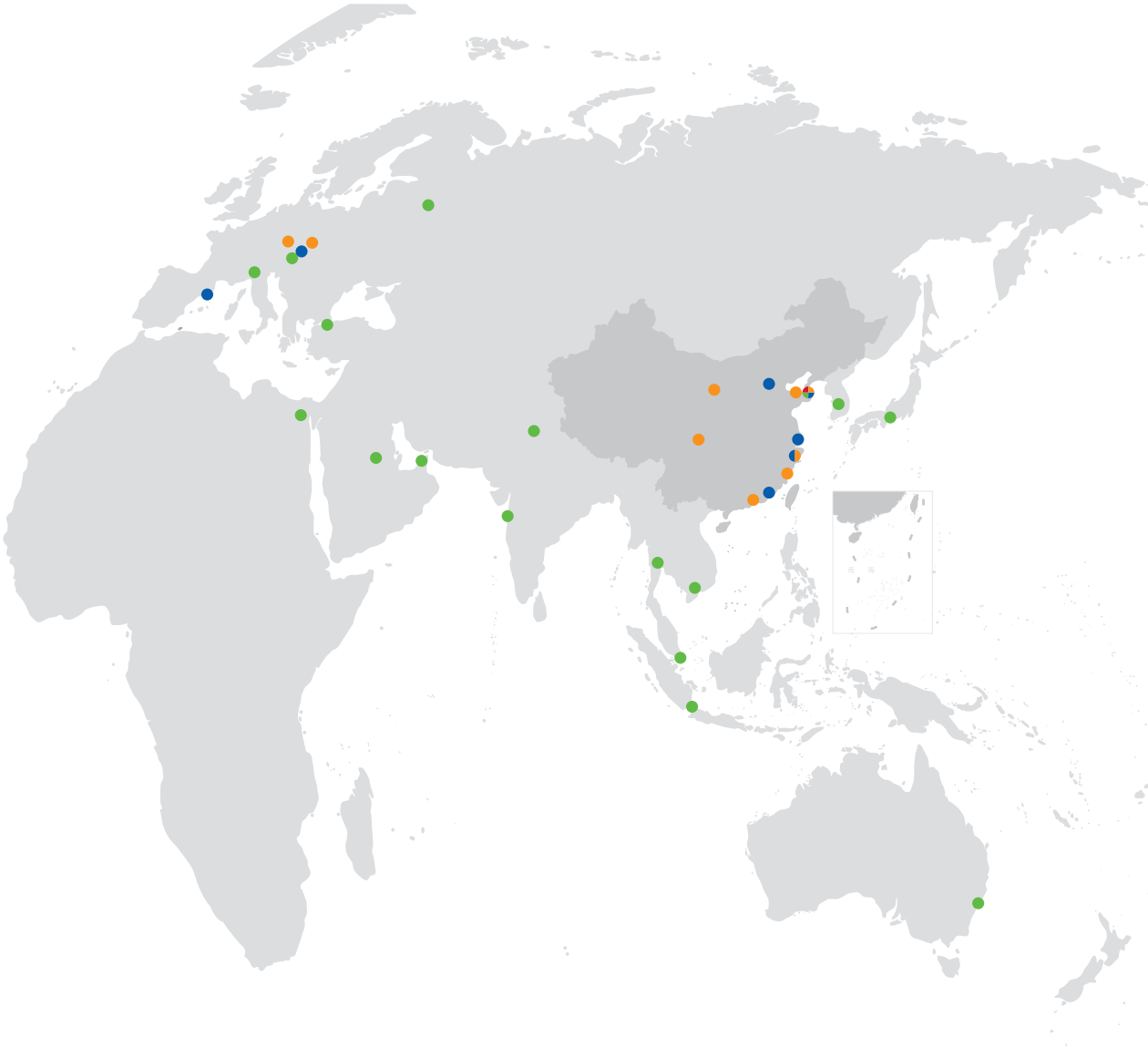
In the new year, our strategy will be more focused, aiming to build strong competitive advantages. First, we will accelerate the capacity expansion and efficiency improvement of MDI, ensure the on-schedule commissioning of the ethylene phase I modification project and phase II construction project, implement special polyolefin projects, and drive the iterative upgrading of fine chemicals, further strengthening our existing product advantages. At the same time, it is crucial to recognize that the battery materials business represents Wanhua Chemical's strategic foundation for long-term development. While entering a completely new industry inevitably brings significant risks and challenges, we will consolidate our strengths to accelerate technological innovation in battery materials and strive to become the industry's "Chief Innovation Officer" as soon as possible. We will expedite the construction of the Haiyang Battery Material Industrial Park, rapidly enhance our battery material supply capabilities, and promptly meet the fast-growing demands of our customers.

In the new year, we will embrace transformation with new perspectives and passion to create a brighter future.

Chairman of Wanhua Chemical Group Co., Ltd.

About Wanhua

Company Introduction



Company Profile

Wanhua Chemical Group Co.,Ltd. is among the global leading suppliers of chemical innovative products.

Our business covers polyurethanes, petrochemicals, performance chemicals, emerging materials and future industry. The industries we served include homeware and furniture, sports and leisure, automobiles and transportation, building and construction, electronics and electrical appliances, personal care, and green energy.

Headquarters

R&D Centers

Production Bases

Sales Offices

Total assets

293 billion yuan

Operating income

182 billion yuan

Net assets attributable to the parent company

95 billion yuan

Net owners' profits attributable to the owners of the parent company

13 billion yuan

Wanhua Chemical boasts nine fully integrated productions sites in China (Yantai, Penglai, Ningbo, Sichuan, Fujian, Zhuhai and Ningxia), Hungary, and the Czech Republic, which are integrated with complete supporting facilities. To provide our customers worldwide with competitive products and comprehensive solutions, Wanhua has established multiple R&D centers (Yantai, Ningbo, Shanghai, Beijing, Shenzhen, Spain and Hungary) and several subsidiaries and offices in more than ten countries and regions across Asia, Europe, the United States, etc.

Adhering to "Advancing Chemistry, Transforming Lives" as our mission, we are committed to providing customers with stable, high-quality, competitive products and efficient services, and to being a responsible supplier and industry leader. We will continue to innovate in the field of new chemical materials, lead the development of the industry, and create a better life for mankind!

Culture

Mission: Advancing Chemistry, Transforming Lives

The symbiosis between chemistry and human civilization is one of the main means of humans to understand and transform the material world. It is an important symbol of human social progress and the fundamental basis for Wanhua's innovative development. Making life better is essentially taking the path of green development, constantly innovating and pursuing excellence, bringing greater value to customers, employees and society, and creating a better life for humanity. For this reason, We promise:

Be Customer-oriented: Deliver high-quality products and services that exceed our customers' expectations in order to become and remain their top choice.
Care for Employees: Provide a human-oriented work environment where employees can flourish.

Adhere to Sustainability: Observe Earth-friendly practices at all levels of management and operation, in order to ensure safety, efficiency and sustainability.
Insist on Technological Innovation: Discover more new chemical materials that benefit humanity and continuously strive for a better life.

Core Values

Vision: To become an innovative, world-leading chemical company, admired by our employees and respected by the community.

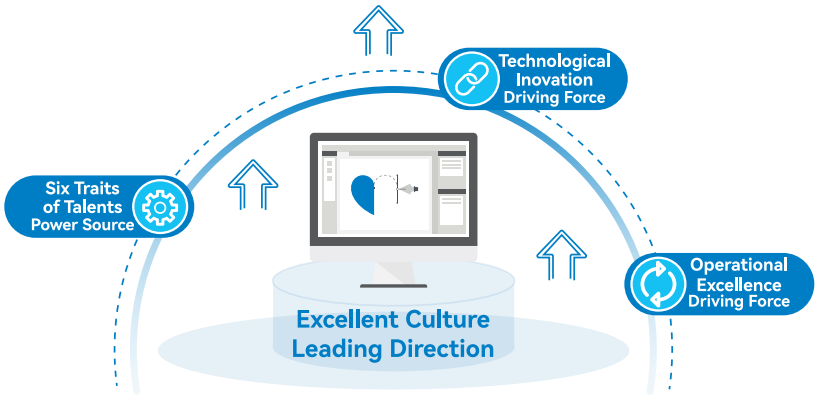
Respected by the community: To be a responsible corporate citizen, a responsible supplier, and a responsible leader.

Admired by our employees: Demonstrating an appealing vision; Providing competitive compensation and benefits; Offering challenges and opportunities; Creating a fair and efficient environment.

World-leading: Wanhua takes the international leading as the standard, firmly adheres to innovation, pursues excellence and achieves sustainable development.

Development Strategy

With insight into the needs of society and customers, focusing on the field of high-tech, high value-added chemical new materials, guided by passionate culture, centered on technological innovation, based on operational excellence, founded on talents, Wanhua implements a strategy toward high-end, integrated, large-scale, intelligent & green, globalized and low-cost development. We are committed to becoming a world-leading chemical company.



Main Honors and Awards in 2024

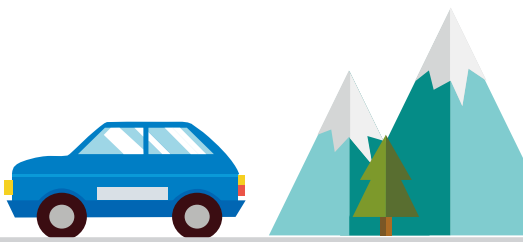
Wanhua Chemical received the Silver Medal Certification in the EcoVadis Sustainability Rating

Wanhua Chemical was selected for the 2024 Fortune China ESG Impact List

Wanhua Chemical officially joined the China ESG Alliance, marking another strong initiative by the Company to enhance ESG work and strengthen sustainable development practices. As a member of the Alliance, Wanhua Chemical will leverage its experience in corporate governance, environmental protection and social responsibility to exert the influence of alliance member enterprises, working with all relevant parties to jointly enhance corporate ESG capabilities and contribute to human society's sustainable development

BorsodChem was listed 11th on the "Top 40 ESG" jointly released by Hungary's HVG and Planet Fanatics' Network, and also ranked in the top 10 in the fields of environmental and social responsibility. Additionally, the Company received a Special Award for its high participation rate in equal opportunity training

Wanhua Chemical was recognized as a pilot unit in Shandong Province for "Enhancing Employee Quality of Life, Building the Enterprise with Employee Happiness"



BorsodChem has been awarded the internationally recognized "Responsible Care" Certification, fully demonstrating its outstanding performance in environmental protection, technology safety, and occupational safety, etc.

Wanhua Chemical received the CFS 2024 Low-carbon Development Model Award

Wanhua Chemical was awarded the 2024 ESG Model Enterprise Award at the Third International Green Zero-Carbon Festival for its initiatives in pursuing a path of green sustainable development and promoting economic transformation and upgrading

Wanhua Chemical's inclusion in the 2024 ESG Blue Book Case of Chinese Enterprise reflects its excellent practices and innovative measures in the ESG field, providing a reference for other enterprises

BorsodChem was selected as the "Large Green Company of the Year" at the 2024 Sustainable World Conference, winning the Green Awards 2024

Wanhua Chemical became the first pilot unit in Shandong Province to establish a "Waste-Free Group"


烟台市生态环境局

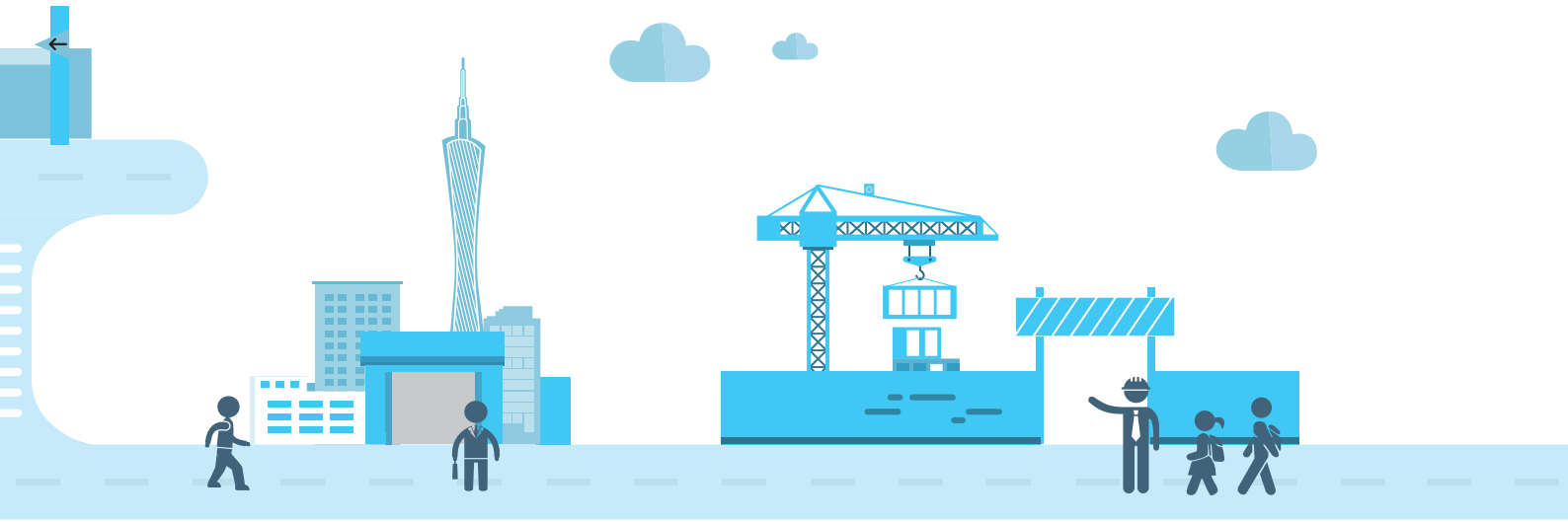
BorsodChem won the "Public Award in Large Enterprise Category" at the beneFit Prize award ceremony, recognizing the Company's outstanding efforts in enhancing employee well-being and fostering a culture of care

02

ESG Strategy

04 ESG Strategy

Focusing on the United Nations' 17 Sustainable Development Goals (SDGs), we adopt " Advancing Chemistry, Transforming Lives " as our overall vision for sustainable development strategy. We have developed a comprehensive strategic system in three major areas: empowering green chemistry, creating social value and abiding by the governance code.



Sustainable Development Overall Vision

Advancing Chemistry, Transforming Lives

Wanhua Chemical is committed to promoting its own transformation through the power of chemistry, while providing solutions for common challenges of mankind, and contributing to a sustainable future

Core Areas

Energize Green Chemistry

Create Social Value

Abide by Governance Principles

Key Action Commitments

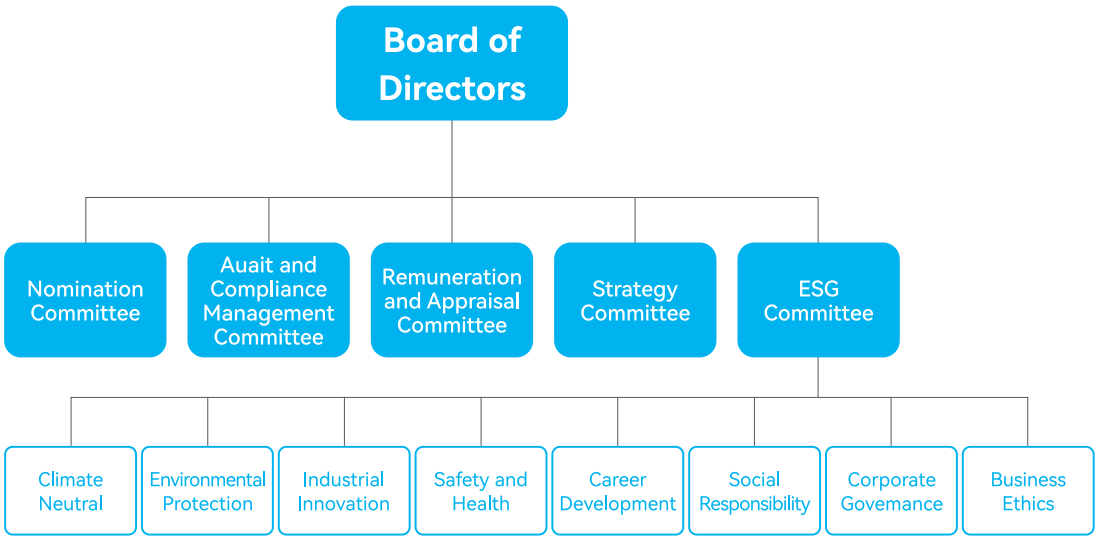
Energize Green Chemistry			Create Social Value			Abide by Governance Principles	
Climate Neutrality	Environmental Protection	Industrial Innovation	Safety and Health	Talent Development	Social Responsibility	Corporate Governance	Business Ethics
Achieve net zero emissions from our own operations	Reduce the intensity of resource consumption	Expand green solutions	Fully ensure the safety of chemicals	Build a culture of diversity and equality	Create positive impact	Improve governance structure	Fully compliant operation
Actively promote emissions reduction in value chains	Manage environmental footprint effectively	Circular economy	Zero injuries and zero accidents	Empower employees to innovate and grow	Sustainable procurement	Improve the ESG mechanism	Anti-corruption

Strategic Pillars

Passionate Culture — Technological Innovation — Operational Excellence — Partnership

ESG Governance

The Company continuously enhances its ESG governance level, establishing an ESG Governance Framework consisting of the Board of Directors, ESG Committee and Special Committees, fully responsible for the planning, supervision and execution of the Company's ESG matters. The Company's President acts as the convener of the ESG Committee, which is primarily responsible for researching and providing recommendations on the Company's Environmental, Social and Corporate Governance matters.



Based on the Board of Directors' ESG Supervision-Decision Governance-Planning Execution three-tier management structure, a management organization system has been formed with deep high-level involvement, efficient vertical linkage and organic horizontal coordination. By continuously optimizing the ESG Governance System, we aim to achieve a win-win situation of economic benefits and social benefits, creating more long-term value for shareholders, employees, customers and society.

ESG Governance Structure	Composition of member	Responsibilities
Board of Directors	Members of Board of Directors	Strategic Supervision: Responsible for listening to the recommendations of the ESG Committee, supervising and approving ESG-related strategies; Report Approval: Responsible for approving the Annual ESG Report.
ESG Committee	Composed of three directors, including one ESG Committee convener (Company's President)	Responsible for researching and proposing suggestions on the Company's environmental, social and governance goals and decisions; Responsible for reviewing and supervising the goals and implementation status of the Company's environmental, social and governance-related work; Responsible for identifying and evaluating the Company's environmental, social and governance related risks and opportunities and proposing suggestions; Responsible for reviewing the Company's external disclosure of the Environmental, Social and Governance Report and proposing suggestions.
Special Committees (climate neutrality, environmental protection, industry innovation, safety and health, career development, social responsibility, corporate governance, business ethics)	Business-related departments representatives	Responsible for implementing various ESG work of the Company; Communicating with stakeholders; Preparing the Company's Annual ESG Report.

5.3 Communication with Stakeholders & Due Diligence

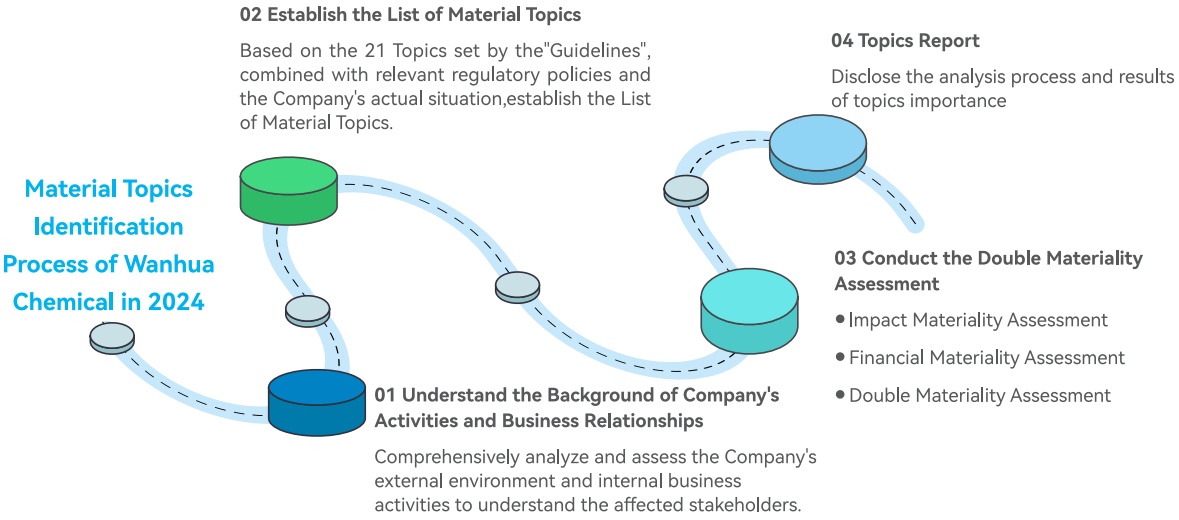
Wanhua Chemical's sustainable development management system is a co-construction system covering all stakeholders. The main identified stakeholders include customers, suppliers, employees, shareholders and investors, government and regulatory authorities, community and public, and research institutions. To fully understand the needs of stakeholders, we have developed diverse communication channels and established a real-time, effective and long-term communication mechanism to listen to the expectations and demands of stakeholders and respond to them with practical actions.

At the same time, we conduct due diligence, using stakeholder feedback as an important information source to fully identify potential sustainable development-related impacts and risks, and formulate more targeted response measures to jointly promote the achievement of the Company's sustainable development goals, gaining the trust and support of stakeholders.

Key stakeholders	Expectations and demands	Communication and response
Customer	Customer relationship Circular economy Product safety Data security and customer privacy protection	Annual customer satisfaction survey Annual audit and evaluation 24-hour customer service hotline, customer meetings
Supplier	Supply chain management Sustainable procurement practices Drive industry development	Supplier conference Supplier audit Participation in the TfS Initiative
Employees	Health and safety Training development Salary and welfare Diversity and equal opportunity	Employees' congress Diverse training, career development system Team activities Coffee time Family day Internal email, forum
Shareholders and investors	Business ethics and compliance Risk control Communication and transparency Circular economy Climate change and carbon emissions	General meeting of shareholders Company website information disclosure Annual Financial Report Environment, Social and Governance Report
Government and regulatory authorities	Health and safety Waste treatment Pollutant emissions Climate change and carbon emissions	Accept supervision and inspection Environment, Social and Governance Report Provincial "Waste-Free Group" construction pilot "Four-Dimensional Waste Reduction" demonstration path
Community and public	Community involvement and contribution Green product Waste treatment Pollutant emissions	Rural revitalization project Public welfare activities Open Day event Environment, Social and Governance Report Compliance handling of pollutants and waste
Research institutions	Innovation and R&D	Research forum School-Enterprise co-construction forum

Material Topics in Focus

Material Topics Management is the foundation and core of Wanhua Chemical's sustainable development governance and management work. In 2024, we updated the assessment method for material topics according to the latest disclosure standards such as the Guidelines No.14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies - Sustainability Report (Trial) (hereinafter referred to as the "Guidelines"). For the first time, we conducted a Double Materiality Assessment, focusing on the demands and main concerns of stakeholders in various industry chain segments. Based on previous impact materiality assessment, we integrated a financial perspective to comprehensively analyze the impact of ESG topics on the Company's financial, environmental, social and governance aspects, forming 26 material topics for focused response this year.



1 Understand the Background of Company's Activities and Business Relationships

From the perspective of sustainable development-related impacts, we analyze the distribution of the Company's activities and business relationships, as well as the affected stakeholders, by integrating the Company's strategic planning, products and services information, and considering policies, standards and development trends relevant to the industry in which the Company operates.

2 Establish the List of Material Topics

Based on the topic-related requirements of the Guidelines No.14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies - Sustainability Report (Trial), combined with the analysis of Company's activities and business relationship background and the Company's Material Topics in 2023, we established the Wanhua Chemical's List of Material Topics in 2024.

3 Conduct the Double Materiality Assessment

1. Impact Materiality Assessment: Evaluate whether the Company's performance on relevant topics will have a significant impact on the economy, society and environment.

Assessment method:
- Distribute stakeholder survey questionnaires to assess the degree of impact of topics on the economy, society and environment;
- The Company conducts further discussions on the actual/potential impact of topics internally. For positive impacts, it assesses the scale, scope and likelihood of the impact; for negative impacts, it evaluates the scale, scope, irreparability and likelihood of the impact, and scores them. The higher score is selected as the impact materiality score for the topic.
- Considering the above questionnaire and discussion results comprehensively, and communicating with third-party experts, we ultimately derived the impact materiality score for each topic, representing the degree of impact materiality of the topic, and used it as the vertical axis of the double materiality matrix "Degree of Impact on Stakeholders".
- Based on the score, we set a threshold for the impact materiality of topics, determining topics with scores exceeding the threshold as having impact materiality.

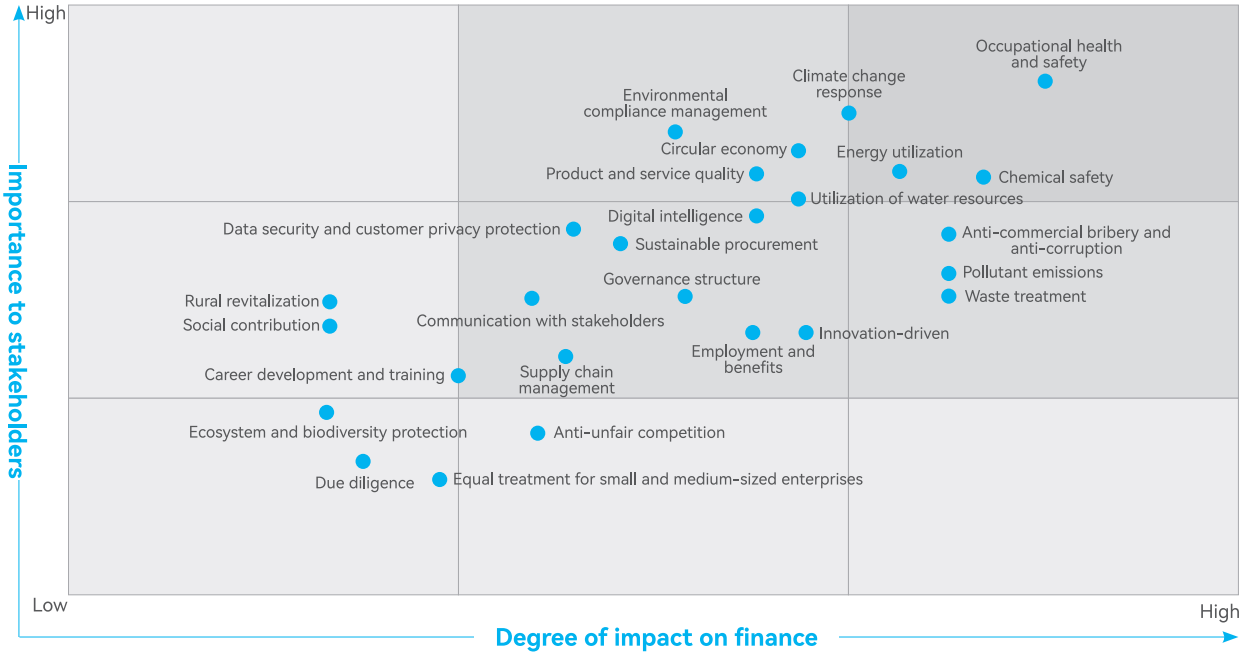
2. Financial Materiality Assessment: The Company identified risks and opportunities related to the topics and analyzed the extent to which these risks and opportunities impact or may impact the Company's business operations, financial condition, operating results and cash flow, to determine topics with financial materiality.

Assessment method:

- Experts from the Company's Financial Department and main department heads communicated and discussed together. For the identified risks (or opportunities) related to the topics, they comprehensively scored from two aspects: the scale of the financial impact of the risk (or opportunity) on the Company and the likelihood of the risk (or opportunity) occurring, selecting the higher score as the financial materiality score for the topic.
- After comprehensively considering the Company's future development strategy, the continuity of related resource acquisition, and communicating with third-party experts, we adjusted the topic scores obtained from the above steps and ultimately derived the financial materiality score for each topic, representing the degree of financial materiality of the topic, as the horizontal axis of the double materiality matrix "Degree of Impact on Finance".
- Based on the score, we set a threshold for the financial materiality of topics, determining topics with scores exceeding the threshold as having financial materiality.

3. Double Materiality Assessment: The Company integrated the results of the above analyses on the impact materiality and financial materiality of topics and plotted the following matrix. We identified a total of 26 topics with materiality, four of which have dual materiality in both financial and impact aspects, namely: occupational health and safety, climate change response, energy utilization, and chemical safety; 7 topics have financial materiality, including the above 4 dual materiality topics and anti-commercial bribery and anti-corruption, pollutant emissions and waste treatment.

Wanhua Chemical's 2024 ESG Report Double Materiality Matrix



4 Topics Report

This Report discloses the material topic assessment process and results in 2024.

5.5 Financial Material Topic Disclosures

Material topic	Positive impact	Negative impact	Scope of impact				Duration of impact (Short-term: <1 year Medium-term: 1-5 years Long-term: >5 years)	Affected stakeholders	
			Upstream value chain	Business operation	Downstream value chain	Community			
Climate change response	Establish carbon reduction targets, implement carbon reduction measures, and mitigate climate change. Carry out the low-carbon technology and product development, and the development of clean energyprojects, promote low-carbon industry development, bringing new employment opportunities.	If extreme weather is not effectively addressed, it may lead to supply chain disruption and infrastructure loss, causing instability in socio-economic development.	Y	Y	Y	Y	Medium to long-term	Employees, customers, suppliers, community and public, shareholders and investors, government and regulatory authorities	
Energy utilization	Implementing energy-saving technological transformation projects to improve energy efficiency, which helps reduce excessive energy consumption. Optimizing the energy structure and using clean energy helps reduce the extraction of fossil fuels and exhaust emissions.	The implementation of energy-saving technological transformation projects leads to the disposal of old equipment and facilities. The use of clean energy or project construction may lead to negative impacts on the ecological environment.	Y	Y	Y	Y	Medium to long-term	Employees, community and public, government and regulatory authorities	
Occupational health and safety	Implementing various occupational health and safety management measures can ensure the health and safety of employees, enhance the sense of well-being of employees and their families, ensure stable business operations, and thereby promote stable social development.	Inadequate management measures may lead to accidents, negatively impacting employee health and safety, while also affecting stable business operations.	Y	Y	Y		Short, medium, and long term	Employees, suppliers, government and regulatory authorities	
Chemical safety	The lifecycle management of chemicals enhances customers' and the public's understanding of chemicals, promoting their safe use. Implementing chemical safety management measures ensures the safe and stable operation of the Company, enhances employee satisfaction, and also strengthens society's trust in the chemical industry.	Inadequate management measures may lead to chemical leakage, chemical accidents and others, causing pollution to soil, air and water, negatively impacting the health and safety of employees and the community, and also resulting in social and economic losses.		Y	Y	Y	Short, medium, and long term	Community and public, customers, employees, suppliers, government and regulatory authorities	
Anti-commercial bribery and anti-corruption	Carrying out anti-commercial bribery and anti-corruption can create a fair competition market atmosphere for upstream and downstream enterprises and partners in the supply chain, ensuring reasonable allocation of resources, promoting social fairness and healthy industry development.	Violating business ethics and compliance requirements may affect supply chain stability and product quality, leading to a decline in customer trust and disrupting the market environment with fair competition.	Y	Y	Y		Medium to long-term	Suppliers, employees, customers	
Pollutant emissions	Effective management and reduction of pollutant emissions can protect the ecological environment and ensure the health of surrounding community residents.	Excessive pollutant emissions cause pollution to the atmosphere, water bodies, soil and groundwater.		Y		Y	Medium to long-term	Government and regulatory authorities, customers, employees, community and public	
Waste treatment	Compliant waste management and maximizing recycling and utilization of waste can prevent waste from entering the soil and water bodies, protecting the ecological environment and the health of community residents.	If the waste is not handled properly or can not be maximized for recycling and utilization, it may cause pollution or damage to the surrounding environment and waste resources.		Y	Y	Y	Short term	Customers, employees, community and public	

Note: For specific management measures on each topic, please refer to the relevant chapters in the main body of the Report.

Material topic	Risk	Opportunity	Management measures	Indicator and objective
Climate change response	Extreme weather events caused by climate change may damage Company's production facilities or cause supply chain disruption, leading to direct economic loss; The increasing attention of multiple stakeholders to climate change, along with stricter external policies and regulations, may increase cost expenditures.	The demand from customers for green low-carbon products brings new market opportunities for the Company; By using low-carbon processes, carbon emissions are reduced while production efficiency is enhanced; The Company's strong performance in climate change response can improve its ESG rating, gaining recognition from investors and customers, and bringing more business opportunities to the Company.	Actively taking measures to address carbon emissions from purchased electricity, such as developing new energy projects, purchasing and applying for green electricity certificates, building zero-carbon industrial parks and others to respond to climate change and reduce product carbon footprint; Promoting the carbon reduction across the entire industry chain through technological innovation and upstream and downstream cooperation; establishing emergency plans for extreme weather events to enhance supply chain resilience.	Commitment to achieving carbon peak no later than 2030, striving for carbon neutrality by 2048; With 2021 as the base year, 2030: Carbon emission intensity (Scope 1+2) (tCO_2e/t) to decrease by 20%
Energy utilization	The Company needs to increase environmental protection investment, continuously update and upgrade production equipment and technology, leading to an increase in operating costs.	To a certain extent, it reduces the Company's dependence on traditional energy, and more efficient energy utilization methods can also reduce energy costs.	Vigorously carry out energy-saving technological transformation projects to improve energy use efficiency; conduct technological innovation in the production process to enhance energy usage rate during production; continuously increase the proportion of clean energyusage; conduct environmental impact assessments before project construction.	With 2021 as the base year, 2030: Energy consumption intensity (terawatt-hour/million tons) decreases by 20%
Occupational health and safety	In the event of occupational health and safety injuries or accidents, there will be a direct impact on the safety and health of the Company's employees; The Company may face administrative penalties, fines, etc., from relevant departments; This could affect the Company's reputation and corporate image.	The use of automation technology can replace manual labor in some hazardous tasks, improving production efficiency and personnel safety.	It should establish and improve the safety management system, strengthen occupational health and safety education and training, enhance employee personal protection, strictly implement operation risk control, and reinforce fire safety management, etc; Also actively cooperate with the government's supervision work and accept public supervision.	Take the goal of achieving "Zero Harm, Zero Accident, Zero Emission, and Building a Green Ecological Modern Chemical Company"; The number of employee fatalities is 0, and the recordable injury rate (time/per 200,000 man-hours) is ≤ 0.06
Chemical safety	Improper handling in the production, storage, transportation, packaging, processing, use and others of chemicals may lead to environmental pollution or trigger safety incidents, resulting in property loss or loss due to work stoppage.	Upgrading advanced technologies such as the Internet of Things can enhance the monitoring and warning level of the entire chemical production process, further ensuring chemical safety.	Strictly implement the lifecycle management of chemicals, actively develop and introduce advanced management tools to improve safety management levels and efficiency, and to ensure product safety and compliance.	Compliance rate of purchasing and marketing of new chemical substances: 100% Compliance rate of purchasing and marketing of existing substances: 100%
Anti-commercial bribery and anti-corruption	Violating business ethics and compliance requirements will lead to legal and sanction issues, causing financial loss and reputation damage.	Maintaining a high level of business ethics and enhancing the corporate governance level can reduce legal and financial risks, while increasing trust from customers and investors, thereby enhancing corporate reputation.	Through risk identification, system construction, compliance audit, training and promotion, and special actions, the foundation of compliance management is solidified.	Business ethics and compliance training coverage rate is 100%, anti-corruption training coverage rate is 100%
Pollutant emissions	Violating relevant laws and regulations on pollutant emissions management results in financial losses such as fines, affecting Company's reputation.	It should improve the environmental management level, reduce the impact on the environment, meet the relevant laws and regulations, and enhance the Company's reputation and image.	Actively apply the "3R" clean production concept to reduce pollutant emissions; install pollutant treatment devices and build efficient recycling and treatment facilities to achieve materials recycling and utilization while reducing pollutant emissions.	With 2021 as the base year, 2030: COD emission intensity (tons/thousand tons) decreases by 35%; Exhaust emission intensity (tons/million tons) decreases by 10%
Waste treatment	Harmful emissions and secondary pollution may occur during waste treatment, affecting environmental quality and public health, which may lead the Company to face high environmental remediation costs and legal liability.	Through recycling and reuse of waste, it can be transformed into useful products and raw materials, reducing the Company's production costs and enhancing its competitiveness.	Strengthen waste management levels; achieve traceable management of hazardous waste throughout its lifecycle; reduce waste production from the source and maximize recycled input within and outside the park, actively pursuing the "Zero Emission" of solid waste.	With 2021 as the base year, 2030: Solid waste generation intensity (tons/100 tons) decreased by 10%; Solid waste landfill ratio (%) ≤ 0.5

03

Empowering Green Chemistry

Wanhua Chemical relies on continuous technological innovation and operational optimization to strive to reduce the impact of its business on climate, environment and resources, and will work with partners to continuously promote the carbon reduction of value chain.

3.4 Climate Neutral

Wanhua Chemical is committed to achieving carbon peak no later than 2030 and strives to achieve carbon neutrality by 2048. Through clean energy, energy efficiency, and innovative technology, it will continuously promote low-carbon development across the entire industry chain

*Scope 1+2

Indicator	2021 (Benchmark year)	2023	2024	2030
Total Carbon Emissions (million tCO_2e)	23.89	26.46	28.03	Carbon peak
- Direct Greenhouse Gas Emissions (Scope 1) (million tCO_2e)	15.13	16.94	21.61	/
- Indirect Greenhouse Gas Emissions (Scope 2) (million tCO_2e))	8.76	9.52	6.42	/
Carbon Emission Intensity (Scope 1+2) (tCO_2e/t)	0.99	0.72	0.75	↓ 20%

Notes: 1. The data boundary is adjusted so that the electric and heat mutual supply within the companies of Group is not included in the total emissions of Group, with adjustments made to data of 2021 baseline year and 2023.
2. Direct Greenhouse Gas Emissions (Scope 1) includes process emissions and combustion emissions.
3. Indirect Greenhouse Gas Emissions (Scope 2) are calculated based on the market-based method. In 2024, the electricity emission factor is the national average electricity CO_2 emission factor (excluding non-fossil energy electricity from market-based transactions) at 0.5856 $kgCO_2/kWh$, and the steam emission factor is 0.11 tCO_2/GJ.
4. Product output includes the Company's main products, intermediate products and by-products.

Clean Energy

Wanhua Chemical's overall goal for clean energy is to achieve 50% coverage of clean electricity in all domestic production bases by 2030 and full coverage of clean electricity by 2035. In recent years, through regional electricity resource analysis, cooperative procurement model innovation and others, Wanhua has explored diversified channels for zero-carbon electricity, resulting in a significant increase in low-carbon electricity. In 2024, Wanhua Chemical successfully entered the List of "TOP 100 Enterprises in China's Green Electricity (Green Certificate) Consumption in 2023" and won the 76th place.

In 2024, the Company's joint venture projects in clean energy fields such as wind power, solar energy and nuclear power progressed smoothly, contributing to the social increment of clean energy.

Haiyang Fishery-Solar Complementary Project

Wanhua Chemical and Huaneng Group constructed the Haiyang Fishery-Solar Complementary Project, which was connected to the grid with 70 MW in September 2024. The project plans an installed capacity of 200 MW, with an annual on-grid electricity of 253 million kWh, equivalent to a reduction of 140,000 tons of carbon emissions.

Fujian Offshore Wind Power Project

Lianjiang Longyuan Wanhua New Energy Co., Ltd., a joint venture established by Wanhua Chemical and CHN Energy, was registered in 2023. Both parties are jointly constructing a 310 MWp offshore wind power project on the main island of the Matsu Islands, the largest island in Fujian Province. The project plans to install 23 wind turbines with a single capacity of 13.6 MW, achieving an annual power generation of 1.45 billion kWh and an annual carbon dioxide reduction of over 800,000 tons.

Zhaoyuan Nuclear Power Project

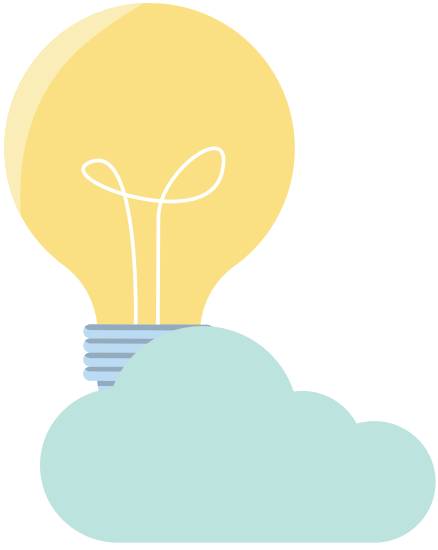
Wanhua successfully acquired a stake in Zhaoyuan Nuclear Power, securing a 5% shareholding and 14% electricity rights. The future total installed capacity of 7.2 million KW "Hualong NO.1" will provide Wanhua with approximately 7 billion kWh of clean electricity, reducing carbon dioxide emissions by 3.76 million tons annually.

Market Cooperation

In 2024, Wanhua Chemical continuously seeks breakthroughs in clean energy investment and market cooperation. By collaborating with Sanmen Nuclear Power and obtaining its entire market-based electricity, the Company becomes the only direct nuclear power user in Zhejiang Province. It is expected that by 2025, the clean electricity share of the Ningbo Production Base will increase from 4% to 40%.

Energy Efficiency

Wanhua Chemical has established a systematic and standardized energy management framework, achieving effective monitoring of energy use, optimizing resource allocation, and improving energy utilization efficiency, and set clear goals and indicators for continuous improvement of energy performance.



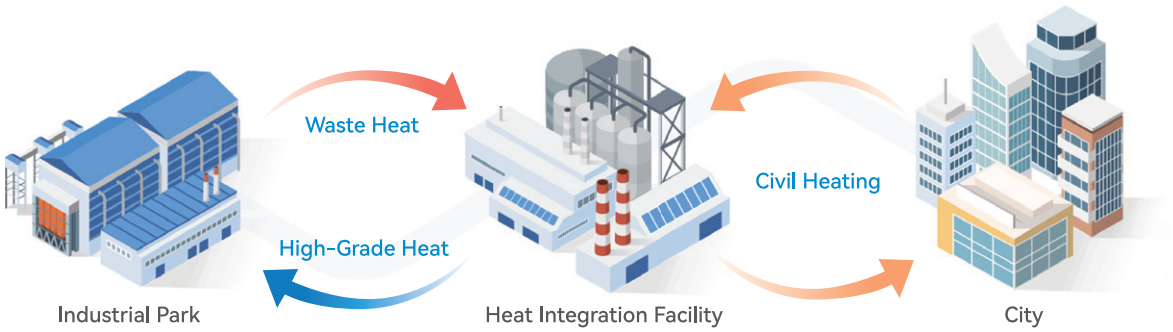
Indicator	Unit	2023	2024
Total energy consumption	TWh	36.4	40.73
Energy consumption intensity	kg ce/t	122	133

In 2024, Yantai Industrial Park achieved a steam saving of 210 t/h and a reduction of 450,000 t/y through measures such as the large-scale condensing turbine steam-to-electric project, energy-saving technology within devices, energy integration between units, and park energy-saving optimization. The Company will continue to promote the condensing turbine steam-to-electric project and continuously optimize energy-saving controls across various parks.

Wanhua Chemical Waste Heat Reuse Technology

In 2024, this project was shortlisted for the ICIS Process Innovation Award and received the "Hainuo Award - 2024 Innovation Leading Brand" title.

Wanhua Chemical waste heat reuse technology utilizes multiple world-first technologies to reuse the production waste heat from Yantai Industrial Park, providing clean heating for the city in winter and supplying high-grade thermal energy for park production during non-heating seasons. In 2023, nearly one-third of the residents in Yantai Huang-Bohai New Area used this technology, and in 2024, the heating area further expanded, benefiting over 200,000 families. In the future, it will be able to meet the heating needs of five districts in Yantai.



Nitric Acid Device Energy Saving and Emission Reduction

In 2024, Wanhua Yantai Industrial Park successfully implemented steam-to-electric technology for the nitric acid devices, reusing all by-product steam for park production, effectively reducing coal-fired steam usage. The nitric acid devices at Yantai, Ningbo, Fuzhou, and Hungary Bases implement the emission reduction of nitrous oxide, adhering to green and low-carbon operations to provide new momentum for high-quality development.

Innovative Technology

Wanhua Chemical continuously invests in R&D to develop new carbon reduction technologies, such as improving production processes, enhancing energy efficiency, and exploring innovative applications of renewable and low-carbon energy sources. The Company conducts in-depth analysis of existing production processes to identify and implement energy saving and emission reduction measures, continuously reducing carbon emissions during production.

Hydrogen Chloride Recycling Technology

Wanhua Chemical uses innovative HCl catalytic oxidation technology to convert by-product HCl from the MDI device into chlorine gas. This technology uses a world-first non-precious metal catalyst and fluidized bed process, directly converting and refining under mild conditions to obtain high-purity chlorine gas products. This process has advantages such as high reaction efficiency, green environmental protection, and low investment and operating costs, becoming the first Chinese case to enter the finalist of Chemical Week's Best Circular Practice Award.

In 2024, the Yantai Industrial Park Phase II and Phase III completed technical transformation, with a single-unit capacity reaching 300,000 t/y, significantly improving hydrogen chloride recycling efficiency, contributing to the creation of a circular economy.

Nitrobenzene-Thermal Power Energy Integration Project

The aniline reaction heat and the top of the product distillation tower contain a large amount of high-temperature heat above 100° C, which can be used to prepare 105° C hot water. The inlet water temperature of thermal power deaerator is relatively low at about 30° C, consuming a large amount of self-generated S10 steam for deaeration. By recycling the heat from the aniline reaction and the top of the product distillation tower to prepare 105 ° C hot water, we preheat the thermal power deaerator with 105 ° C hot aniline water for integrated inlet water-thermal utilization, saving S10 steam consumption in the deaerator and reducing emissions by nearly 100,000 t/y.

3.5 Environmental Protection

As the first company in the chemical industry to propose and promote the "Zero Emission" environmental protection concept, we commit to achieving zero unorganized emissions of the Three Wastes and 100% compliance of organized emissions until they are reduced to zero. At major production bases, we are dedicated to creating "Three-No" factories (No Drip, No Abnormal Odors, NO Odd Noises), contributing green power to the community and the planet we live on.

Compliance Management

Wanhua Chemical has established an environmental management system with 38 management documents centered on the "Wanhua Chemical Environmental Protection Management Procedure", including the "Wanhua Chemical Construction Project Environmental Protection Management System", "Wanhua Chemical Solid Waste Management System", "Wanhua Chemical Environmental Monitoring Management Regulations", "Wanhua Chemical Hazardous Waste Spontaneous Combustion and Self-heating Management Guide", "Wanhua Chemical Soil and Groundwater Pollution Prevention Management", "Wanhua Chemical Carbon Emission Management Procedure", "Wanhua Chemical Environmental Due Diligence Management System" to improve the environmental management system. In 2024, revisions were made to the "Wanhua Chemical Construction Project Environmental Protection Management System", "Wanhua Chemical Carbon Emission Accounting System", "Wanhua Chemical Carbon Footprint Evaluation Guide" and other systems. During the reporting period, the ISO 14001 Environmental Management System Certification coverage rate for Wanhua Chemical bases that have been in operation for more than three years was 100%.

Pollutant Emissions

While actively exploring environmental protection management experiences, Wanhua Chemical actively applies the "3R" (Reduce, Reuse, Recycle) clean production concept, continuously increasing efforts in the research and development and construction of new pollution prevention and control technologies, implementing a large number of advanced source reduction, process control and pollution control measures, achieving continuous reduction of pollutants on the basis of fully meeting emission standards.

During the reporting period, pollutant emissions did not adversely affect the community or employees, and there were no related administrative penalties.

Wanhua Chemical implements strict control over exhaust emissions generated during production. For major odor sources, the Company has adopted precise and effective control measures, striving to create a high-quality work environment with "Three-No", fully committed to building the "Zero-Odor Factory", achieving green production and ecological harmony.

Indicator	Unit	2023	2024
Exhaust emission intensity	tons/million tons	55.1	55.1
SO_2	tons	411	407
NOx	tons	1610	1666
Particulate matter (PM)	tons	101	91
Volatile organic compound	tons	179	207

Notes: The statistical scope of exhaust emission intensity includes SO_2, NOx.

Odor Control Measures at Sichuan Production Base

At Sichuan Production Base, a series of scientific and targeted measures were implemented to effectively control the on-site odor issue, achieving remarkable results. A comprehensive renovation project was carried out targeting the sedimentation tank, a key source of odor generation. Specific measures included thickening the cover plate to enhance its sealing performance; adding a sealing groove on the cover plate to further improve the sealing effect; simultaneously, thickening the gasket and using clay sealing to comprehensively prevent gas leakage. In addition, a negative pressure suction system was introduced to accelerate the collection and treatment of exhaust gases through suction, significantly reducing the dispersion of exhaust gases from the sedimentation tank. After these comprehensive renovation measures, the frequency of on-site GDS alarms was significantly reduced, with a decrease of 96.5%. Besides the renovation of the sedimentation tank, the centrifuge was elevated, changing its relative position, allowing the bacterial residue to directly enter the horizontal storage tank, thus preventing direct contact with the environment and reducing odor generation from the source. This renovation approach not only effectively solved the odor problem but also improved production efficiency, ensuring the environmental friendliness and sustainability of the production process.

Ethylene Flare Gas Recovery at Yantai Production Base

In the C4 process of the ethylene device, specialized flare gas collection and condensation facilities were added to effectively collect and condense the flare gas emitted from the C4 process, successfully recovering some of the flare gas that would otherwise be emitted, significantly reducing the emissions of butadiene and C4 components. This initiative not only facilitates the circular utilization of resources and reduces material loss in production units, but also effectively reduces flare gas emissions. Aligning with environmental standards, it creates a win-win scenario for the enterprise—delivering both economic benefits and environmental gains.

Waste Treatment

In 2024, the Company actively adopted a strategy of deep audits and special inspections in parallel to comprehensively enhance the solid waste management level at each production base. On the basis of continuously optimizing the solid waste management system, the Company successfully expanded the data collection scope of the pipeline transportation scenario, achieving 100% full coverage of business scenarios, thereby ensuring traceable management of the hazardous waste's lifecycle. Meanwhile, Wanhua Chemical further strengthened the supervision of enterprises for hazardous waste treatment. By implementing strict on-site audits before contract signing, as well as irregular visits and active communication and exchanges during the performance period, the Company effectively urged enterprises for hazardous waste treatment to strictly comply with laws and regulations, ensuring the legality and compliance of hazardous waste treatment.

Indicator	Unit	2023	2024
Solid waste emission intensity	tons/100 tons	3.38	3.92
Solid waste generation volume	tons	1136348	1473093
Solid waste utilization rate	%	89	91.7
Solid waste landfill ratio	%	0.5	0.3

Notes:

1. Solid waste includes general solid waste and hazardous solid waste;
2. Solid waste utilization includes internal utilization within the Group and external utilization.

Case

In 2024, Wanhua Chemical's Yantai Production Base took the lead in launching the "Waste-Free Group" Construction Pilot Project in Shandong Province. The pilot project plan meticulously outlined 4 major aspects and 20 specific work measures, encompassing the first batch of 14 pilot enterprises. The annual work progressed steadily as planned, not only perfecting the construction of the "Waste-Free Group" Indicator System but also achieving compliant sharing of hazardous waste facilities in Yantai, ultimately successfully reaching the Grade A Demonstration Standard of the "Waste-Free Group".

Focusing on in-depth analysis of waste generation plans, precise benchmarking of waste generation, deep exploration of reduction measures, and comprehensive optimization of treatment directions, the Yantai Industrial Park achieved a significant result of reducing solid waste by 17,000 tons. At the same time, adhering to the Company's internal and external dual circulation concept and the guiding principle that "solid waste is a resource misplaced", it leveraged the advantages of the industry chain to explore internal and external resource utilization channels. Through three major paths of raw material substitution, valuable component recycling and reusing, 6 key projects were identified and implemented, increasing the resource utilization of solid waste by 2,690 tons.

To better control the solid waste risk across the Group, the Company established a professional team dedicated to enhancing the professionalism, concentration, standardization and efficiency of risk control. Innovatively launched the "Four-Dimensional Waste Reduction" demonstration path ("Reduction" refers to source reduction, "Substitution" refers to raw and auxiliary material substitution, "Co" refers to the co-construction and co-sharing of environmental facilities, "Simplification" refers to simplifying transfer management procedures), and built an intelligent solid waste management platform to construct a scientific and efficient risk prevention and control mechanism. This series of measures achieved a solid waste reduction of 47,000 tons and resource utilization of 45,000 tons, resulting in significant environmental benefits, social benefits and economic benefits.

Utilization of Water Resources

Wanhua Chemical is committed to reducing water intake and discharge to lower water resource consumption, and supports this goal through multidimensional measures.

Indicator	Unit	2023	2024
Total water withdrawal	10,000 tons	8261	11734
Fresh water consumption	10,000 tons	3787	3069
Fresh water consumption per unit of production	m^3/t	1.03	0.82
Fresh water withdrawal-consumption ratio	%	45.8	45.2
Cooling water recycling rate	%	98.8	98.9
COD emission intensity	tons/1,000 tons	0.018	0.018

Wastewater Reuse and Recycling

It constructs supporting wastewater treatment plants in each production park to treat and reuse industrial and domestic wastewater. At the same time, it establishes a condensate station to comprehensively collect circulating water steam condensate, which is treated and regenerated for steam recycled input.

Rainwater Harvesting and Water-Saving Technology Innovation

Yantai Industrial Park builds rainwater collection pools to collect rainwater and send it to the reclaimed water device for treatment. Meanwhile, it optimizes the park's steam pipeline network to collect water discharged from steam traps and incorporate it into the rainwater system for reuse. Additionally, it establishes a smart energy station to extract waste heat from devices during the heating season for municipal heating, saving an estimated 4.6 million tons of circulating cooling water annually. Also, it renovates the waste brine recovery device and develops and optimizes the wastewater gasification coal grinding process to further reduce water usage in production.

Reduction of Water-Saving Losses and Strengthening of Water-Saving Management

It deploys an automatic monitoring mechanism for the fire water system in Yantai Industrial Park to strictly control leakage in the firefighting water network. It adjusts the timing of irrigation water to nighttime to reduce evaporation and irrigation duration. At the same time, it establishes a water-saving R&D center and forms a professional team dedicated to research and development of water-saving technology. It conducts micro-innovation collection activities for water-saving projects to promote water conservation across the entire chain. It implements a strict water application system, requiring approval for all water usage. It also carries out the lock management on all water discharge valves to prevent unauthorized water use.

Case: Wastewater Reduction Practice

In 2024, Wanhua Chemical Yantai Industrial Park organized and implemented 19 wastewater reduction projects focusing on source reduction and internal reuse, achieving a wastewater reduction of 157,000 m^3.

S/N	Device	Typical reduction project	Reduction effect
1	Condensation separation	Reuse of wash water as pump sealing water and exhaust gas trap water	65000m^3/a
2	Nitrobenzene	Nitric acid startup steam turbine condensate recycling	1600m^3/a
3	Nitrobenzene	Aniline overhaul washing wastewater mutual reduction	1000m^3/a
4	Gasification	Reduce venting time during startup and shutdown to decrease flare gas condensate	2500m^3/a

Meanwhile, Wanhua Chemical has set a goal to provide safe water for employees, striving to offer safe domestic and drinking water for all group personnel. To this end, the Company has implemented several measures, such as establishing separate domestic water tanks to separate production and domestic water; constructing shower rooms, equipping with water purifiers, and using automatic sensor faucets to ensure the safety of domestic and drinking water for employees.

Ecosystem and Biodiversity

Wanhua Chemical is among the first enterprises selected as a national "Resource-saving, Environmentally Friendly" enterprise. Over the years, the Company has continuously promoted green development and strengthened ecosystem protection. From the feasibility study stage of construction projects, research on genetic diversity, species diversity and ecosystem diversity is conducted. During the project site selection stage, ecological environment biodiversity surveys are carried out to fundamentally eliminate or reduce the impact of project construction on local biodiversity. We are committed to building a green ecological modern factory, taking responsibility to safeguard the beautiful future.

Based on the lifecycle management process of the land, the Company has established a soil and groundwater pollution prevention system. Guided by the "Soil and Groundwater Pollution Prevention Management Program", combined with relevant standards and guidelines, from land entry to exit, we conduct lifecycle environmental risk system assessments, effective control and dynamic monitoring of soil and groundwater to ensure that activities throughout the entire operational lifecycle do not impact the soil and groundwater environment of the occupied site.

3.3 Industry Innovation

We firmly believe that innovation is the key force driving social progress and achieving sustainable development. As a global operation chemical new materials company, we always regard technological innovation as the primary core competitiveness of company development, continuously exploring cutting-edge technology and committed to providing more environmentally friendly, efficient and sustainable products and solutions for various industries.

Innovation-driven

Wanhua Chemical Collaborates with KUKA For Launch of New Products

In 2024, two memory foam mattresses jointly developed by Wanhua Chemical and KUKA were officially unveiled. As a new exploration of cooperation models, it can bring consumers a brand new sleep experience.

Starting from addressing consumers' sleep issues, relying on Wanhua Chemical's stable and high-quality raw materials, combined with KUKA's meticulous and rigorous mattress craftsmanship, both parties continuously optimize from material selection, structural design to appearance fabric, infusing sleep technology into every detail of the mattress. Through stringent performance testing and sleep trial experience, they jointly developed two new memory foam mattresses with a fresh sleep feel, providing another solution for contemporary consumers' pursuit of health and environmental protection in life.

Whether you prefer a soft, enveloping feel or a firm, supportive one, it can be reasonably matched according to the structural design. It can be rolled and folded, truly achieving flexible transportation and delivery, making mattress replacement worry-free.

The comfort layer, buffer layer and support layer are perfectly matched with the characteristics of new materials, endowing the mattress with excellent performance layer by layer. The memory foam in the comfort layer sensitively perceives and perfectly conforms to changes in body shape, allowing muscles and spine to relax naturally. The buffer layer and support layer providing solid support for deep sleep every night.

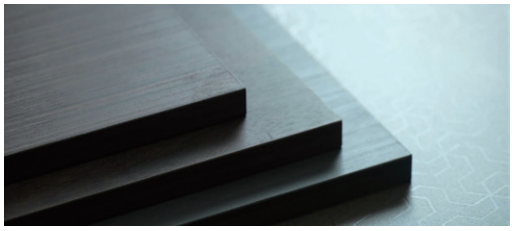
It is worth mentioning that memory foam mattresses are more suitable for applications such as student dormitories, hotels, rental housing, smart beds, medical care and wellness, and sleep experiences, and are expected to become a new choice for healthy sleep in the sleep industry with higher quality and cost-effectiveness.

MDI Marine Plywood: A New Choice for Green Home

The high-end MDI marine Plywood, jointly developed by Wanhua Chemical and Guangxi Forestry Group Co., Ltd., not only meets consumers' pursuit of a healthy lifestyle but also provides high-quality panels for downstream manufacturers. As an innovative product, MDI marine Plywood has set a new benchmark for the plywood industry. Its emergence has promoted the entire industry towards low-carbon, environmentally friendly and high-performance development.

Excellent environmental performance: MDI marine Plywood uses Wanhua Chemical's formaldehyde-free MDI adhesive, eliminating the issue of formaldehyde release from the source. Its environmental performance far exceeds the ENF grade standard, providing consumers with a healthy and safe living environment.

Excellent using performance: This panel exhibits strong adhesion and deformation resistance, effectively solving common issues such as swelling and warping in humid conditions and shrinkage and gaps in dry conditions. After special treatment, the MDI marine Plywood has good waterproof performance, maintaining stability in humid environments, making it especially suitable for areas with high moisture such as kitchens and bathrooms. Additionally, its uniform density and compact structure give the panels better strength and stability, extending their lifespan.



Advanced production process: Through the continuous flat pressing process, the MDI marine Plywood achieves high-efficiency and high-quality production. This process not only makes the performance of the panels more stable but also ensures product consistency during large-scale production. At the same time, advanced production equipment and technology ensure that MDI marine Plywood meet strict quality standards.

Wanhua Chemical Successfully Launches World's Largest Citral Production Facility

Wanhua Chemical has achieved a major milestone with the successful launch of its 48,000-ton-per-year citral production facility, marking the successful commissioning of the world's largest single-unit citral production plant.

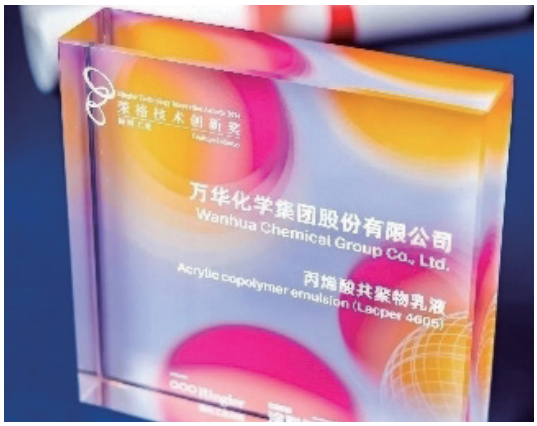
This achievement signifies a groundbreaking advancement in Wanhua Chemical's independent research and development. As a crucial intermediate in creating aroma and nutrition and an indispensable component in the fragrance raw materials market, Wanhua Chemical's citral stands out for its superior quality, exceptional eco-friendly properties, and reliable supply stability. This development establishes a new benchmark in fostering stable, healthy, and sustainable growth in the global aroma industry.

Wanhua Chemical Won the Ringier Technology Innovation Awards for Personal Care in 2024

Wanhua Chemical wins the Ringier Technology Innovation Awards with its 100% natural source "Generation IV" Biosurfactant - Carfil®BIO-RLG, providing a new perspective for constructing a sustainable industrial ecosystem in the care industry.

Carfil®BIO-RLG (INCI Name: Glycolipid, Butylene Glycol) is the world's first 100% plant-derived ultra-low odor biosurfactant, entirely derived from plant-based lipid through fermentation and purification processes, and innovatively uses Wanhua's independently developed fully bio-based 1,3-Butylene Glycol as a product preservative, making it safer and more environmentally friendly, aligning with the industry's sustainable development trend. Relying on Wanhua's advanced separation and purification technology, utilizing industry chain integration, process optimization, the product's odor, appearance and other application performance have reached industry-leading levels. Meanwhile, the glycolipid can be completely degraded in the natural environment within just 35 days, truly achieving recyclable and sustainable green chemistry. Due to its non-irritating nature to the skin and excellent wetting properties, etc, the glycolipid can be widely used in personal care fields such as shampoo, body wash, makeup remover, facial cleansing and oral care.

Wanhua Chemical Won the Ringier Technology Innovation Awards with its Bio-based Acrylic Copolymer Emulsion Lacper®4605



Wanhua Chemical won the Ringier Technology Innovation Awards with its Bio-based Acrylic Copolymer Emulsion Lacper®4605, providing innovative thinking for the green transformation and sustainable development of the coatings industry.

Based on the wood coatings industry's demand for high-quality bio-based raw materials, Lacper®4605, with a high bio-carbon content of 55%, exhibits excellent penetration and good open effect when applied to wood coatings due to its extremely fine particle size. In terms of chemical resistance, weather resistance and others, Lacper®4605 also performs excellently, meeting the requirements for long-term use.

As a bio-based product, Lacper®4605 not only balances hardness and flexibility but also exhibits outstanding anti-adhesion properties: after drying at room temperature for 12 hours, under a heavy pressure of 2 t/m^2 for 8 hours, the paint film remains intact without any adhesion defects, suitable for various construction scenarios.

Wanhua Chemical's Ethylene Process PVC, Leading the Industry New Trend with Low Carbon and Efficient Solutions


SGS

Product Carbon Footprint (PCF) Verification Statement

Wanhua Chemical Group (Yantai) Olefins Co., Ltd.

Product Carbon Footprint Assessment Report of PVC

The ethylene process technology used in Wanhua Chemical's PVC production not only demonstrates the power of technological innovation but also represents a profound commitment to environmental protection and sustainable development. Through this advanced process, the carbon emissions for producing one ton of PVC product are controlled at an ultra-low level of only 0.88 tons, while electricity consumption is maintained within 400 kWh, far below the industry average.

Compared to the traditional calcium carbide process, the ethylene process has achieved significant results in energy saving and emission reduction. Specifically, its carbon emissions have been reduced by more than 85%. Meanwhile, the significant reduction in electricity consumption also highlights the remarkable advantages of this process in energy utilization efficiency, helping to conserve resources, reduce production costs, and promote the chemical industry towards a greener and low-carbon direction.

Circular Economy

Wanhua Chemical's practice in the field of circular economy is increasingly deepening. We are not only committed to energy saving and emission reduction and efficient resource utilization in the production process, but also focus on providing customers with material solutions with high-recycling performance, thereby empowering the downstream industry chain and promoting the transformation of the entire value chain towards a green and sustainable direction.

In terms of water recycling, the Company has adopted various measures and technological means to achieve efficient resource utilization and reuse of water resources.

Urban Reclaimed Water Utilization, Painting a New Ecological Picture

Wanhua Chemical, in partnership with the Yantai Municipal Drainage Service Center and Taozi Bay Wastewater Treatment Plant, established Yantai Reclaimed Water Co., Ltd. to jointly develop a model for the reuse of reclaimed water from urban wastewater treatment plants. This involves targeted treatment of municipal wastewater to produce high-quality industrial water, which is supplied to the Wanhua Industrial Park for production through point-to-point pipeline transportation. Currently, the Yantai Industrial Park uses 40 million tons of reused water annually, accounting for nearly 75% of the park's total water resource utilization. By the end of 2024, the Taozi Bay Wastewater Treatment Plant Reclaimed Water Project had a production capacity of 200,000 t/d.

In terms of exhaust gas recycling, the Company employs advanced exhaust gas capture and conversion technology to efficiently process exhaust gases generated during production. This not only removes hazardous substances but also converts them into valuable energy or raw materials, which are then recycled into the production process. This recycling model not only reduces exhaust gas emissions and protects the environment but also enhances resource utilization efficiency, demonstrating its commitment to sustainable development.

Zero Emission of Flare Gas

The Company adheres to the principles of "Reduction, Reuse, Resource Utilization" by integrating and optimizing 4 flare gas recovery units across 5 incinerators in the park, employing advanced control technology to ensure maximum recovery of flare gas. This not only reduces exhaust gas emissions and eliminates flare gas emission odors but also produces steam as a by-product, saves standard coal equivalent and reduces carbon emissions. The flare gas recovery system is designed with a recovery capacity of 160 million Nm^3/a. In 2024, the flare gas recovery units collectively recovered 52 million Nm3 of flare gas, saving approximately 14,900 tce of standard coal equivalent and reducing carbon emissions by about 38,700 tCO_2e.

In terms of heat recycling, Wanhua Chemical aims to enhance energy utilization efficiency, reduce carbon emissions, and promote the chemical industry towards a more environmentally friendly and efficient way.

Heat Grading Utilization in Wanhua Penglai Industrial Park

By combining the energy use characteristics of various devices in the park, large-scale heat integration technology and advanced control decoupling technology are employed to significantly reduce the park's energy consumption and carbon emissions. For the first time, low-pressure steam is produced as a by-product from the waste heat of the polyether reaction, which is then compressed and sent for use in the park, achieving negative energy consumption operation of the polyether device; using 105° C hot water as a carrier, the energy flow of the C3 industry chain is reconstructed, achieving high integration of process waste, reducing steam consumption in the acrylic acid device by more than 50%.

Wanhua Chemical always prioritizes providing customers with high-recycling performance material solutions, committed to empowering the downstream industry chain comprehensively. In the material research and development phase, its focus is on exploring innovative material combinations and advanced production processes, ensuring that each material not only meets the functional requirements of end products but also possesses high recycling feasibility and reuse value. Through close collaboration with customers, tailor-made material solutions are provided to help customers achieve significant results in enhancing product environmental attributes, reducing resource consumption and increasing market competitiveness.

Wanhua Chemical Finalized for ICIS Innovation Awards: Driving Green Transformation through Innovation

At the 2024 ICIS Innovation Awards, Wanhua Chemical Group has been shortlisted for the Product Innovation Award with its Re-generated Polyether Polyol from Recycled Polyurethane Rigid Foam. This achievement underscores Wanhua Chemical's leadership in sustainable development and its commitment to environmental stewardship.

Wanhua Chemical has pioneered a cutting-edge technology to recycle polyurethane rigid foam waste from discarded refrigerators and freezers. The process efficiently recovers and purifies the foam, achieving 100% degradation and regeneration, with the recycled polyether polyol offering performance equivalent to petroleum-based alternatives. This innovation not only delivers high-quality recycled materials but also supports the industry's shift towards more sustainable practices. Each ton of recycled foam prevents the emission of 3 tons of CO_2, significantly reducing the environmental impact.

New Progress in Chemical Recycling — Pilot Test of Recycled Plastic Based Polyester Polyol Technology Completed

PET plastic bottles, widely used in daily life, are difficult to degrade naturally after disposal, and their processing often requires significant energy consumption, indirectly contributing to increased greenhouse gas emissions. Wanhua Chemical's chemically recycled polyester polyol technology uses discarded PET waste as raw material. Under specific reaction conditions, the process employs high-efficiency catalysts and advanced reactors to depolymerize PET macromolecular chains into small-molecule terephthalic acid and ethylene glycol. These monomers can then be reintroduced into polyurethane production processes. This technology provides an innovative and efficient solution for PET waste treatment, achieving approximately 55% reduction in carbon emissions while effectively mitigating white pollution. Furthermore, its application drives the development of related industrial chains, fosters sustainable economic growth, and establishes a robust foundation for building a resource-efficient and eco-friendly society.

Low-carbon Circular Path of High-performance Polycarbonate

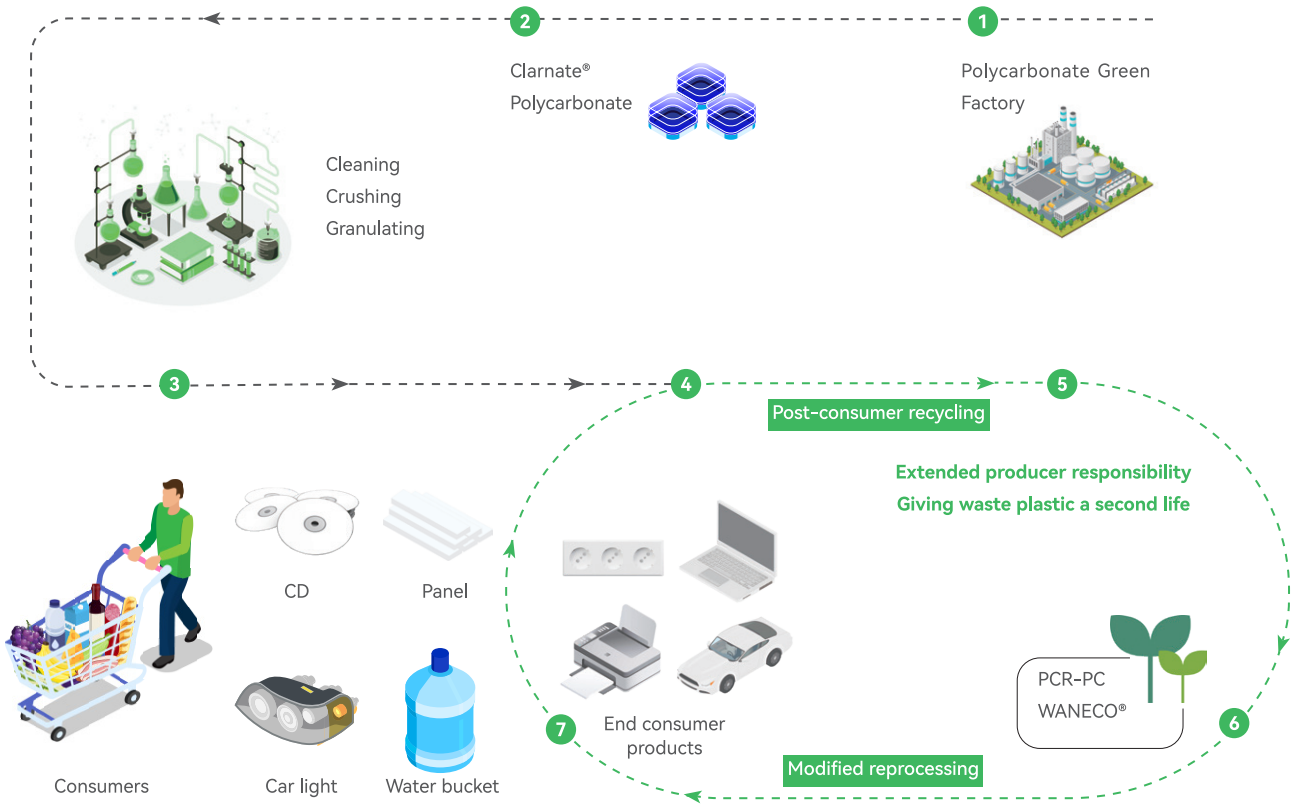
As one of the world's leading producers of polycarbonate, Wanhua Chemical actively practices extended producer responsibility. By closely collaborating with upstream and downstream of the industry chain, it explores the practical path of the circular economy, contributing to achieving carbon reduction targets and sustainable development.

To ensure that upstream recycled materials possess characteristics such as traceability, wide sourcing and high quality, and to develop high-quality low-carbon circular materials, Wanhua Chemical has partnered with Hunan Hongye New Materials Co., Ltd. to reach a strategic cooperation agreement on recycled materials. Wanhua Chemical, together with suppliers, has established strict selection standards, using post-consumer CDs, car light covers, panels, buckets as raw materials. Based on advanced physical recycling processes, through multiple cleaning and purification steps, a stable and reliable high-quality recycled polycarbonate (rPC) supply cooperation model has been established.

High-quality 100% rPC particles Waneco®rPC, compared to traditional polycarbonate products, this rPC product achieves approximately 80% carbon reduction. To meet the diverse application needs of downstream industries, Wanhua Chemical customizes modified PCR - PC materials with different PCR ratios according to the requirements of different industries, aligning with the needs of downstream customers, while enhancing product applicability and market competitiveness.

Strategic Cooperation Signing Ceremony

It joints Wanhua CMF material aesthetic design team, endowing PCR material with unique visual expression of color and texture. Wanhua Chemical collaborates with downstream electronic consumer brands to apply circular low-carbon materials in consumer electronic products, such as laptop housing, power adapters, smart speakers, camera housing and other material solutions. While providing low-carbon environmental material solutions to downstream industries, it also aids the consumer goods market in carbon reduction and environmental protection. In addition, significant breakthroughs have been made in the application of rPC materials (PCR) in automotive industry. We have reached a strategic cooperation with global leading automotive lighting clients to provide rPC material solutions for automotive headlights, brake lights and fog lamp housing. Which not only helps automotive manufacturers enhance the environmental performance of their products, but also provides strong support for the sustainable development of the entire automotive industry.



Wanhua Chemical Waneco®rPC, WanBlend®Modified rPC, with their excellent quality and environmental performance, have obtained international certifications for recycled materials such as GRS and UL2809, while also meeting product safety requirements like RoHS and REACH, further proving its competitiveness and recognition in the international market.

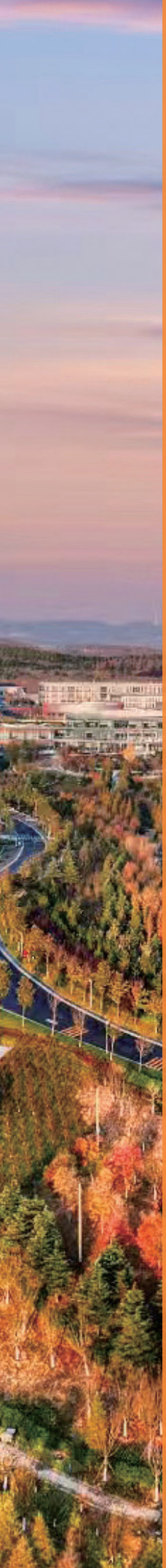
Degradable Materials Promoting Circular Economy

In the context of global environmental protection and sustainable development being highly focused, the degradable mulch film material solution developed by Wanhua Chemical, with its natural decomposition characteristics, fundamentally solves white pollution, moreover it can enhance water and fertilizer utilization, aiding in food growth.

Currently, fully biodegradable mulch films have covered 200 million m^2 of field crops, including important agricultural production bases in Northwest China, Northeast China, and East China, etc., thoroughly solving the residue problem of traditional film while greatly improving soil environment and reshaping farmland ecology.

In 2024, biodegradable reflective film was first successfully tested in 333 thousand m^2 experimental fields at apple planting bases such as Penglai and Qixia, in Yantai of Shandong! The product solution using biodegradable reflective film in these regions meets the performance requirements for coloring and growth needs of various fruit shapes nationwide!

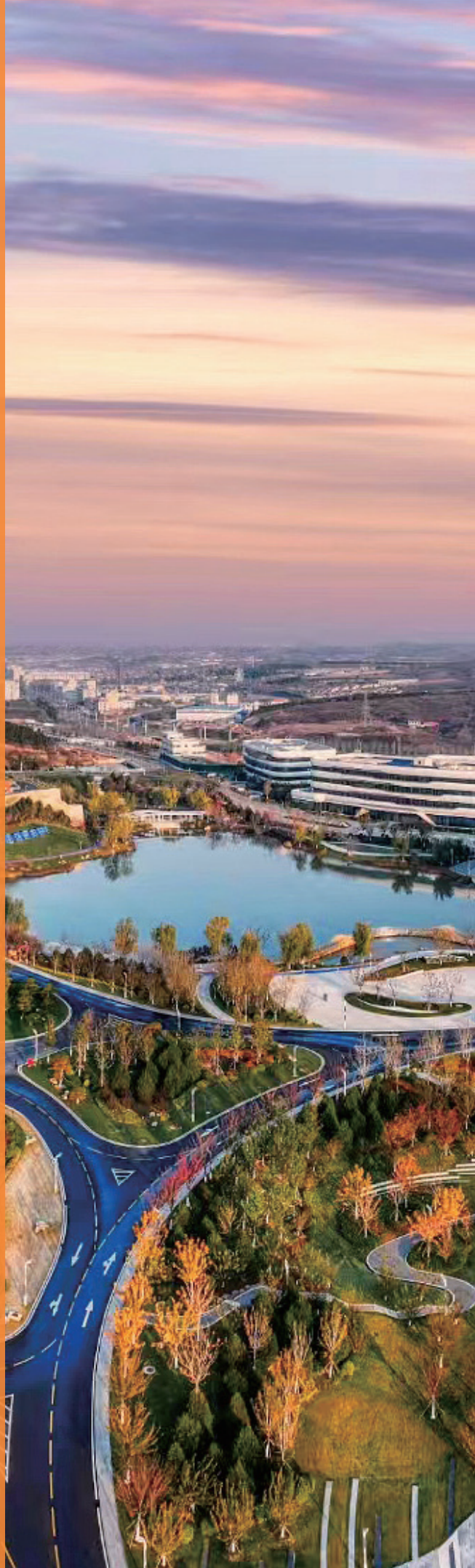
In the consumer sector, Wanhua Chemical leverages its technological innovation advantage to customize Waneco®Modified PBAT material containing 70% bio-based content for use in beverage handbags of international well-known fast food brands. This bio-based material is degradable, reducing negative environmental impact, providing eco-friendly packaging solutions for fast food brands, meeting consumer demands, enhancing brand image and competitiveness, and opening new fields for the commercial application of bio-based materials, promoting the development of circular economy.



04

Creating Social Value

Wanhua Chemical prioritizes social responsibility by actively engagingin people-centered initiatives. Our commitment to sustainable development underscores our dedication to ensuring the safety and health of our employees, stakeholders, and community residents. We recognize environmental protection and resource conservation as fundamental responsibilities that we uphold with reverence.



Occupational Health and Safety

In terms of safety, we firmly believe that all injuries, safety and environment accidents are preventable. We have formulated a long-term strategy for safety management: "Centered on risk management, with safety leadership and safety culture as the cornerstone, focusing on capability enhancement and audit, and rooted in excellent execution and implementation, comprehensively improving Wanhua's safety management capabilities and performance." Wanhua Chemical implements the dual prevention mechanism according to relevant requirements, assessing all involved safety and health risks and formulating control measures, establishing a digital system for continuous operational tracking. In 2024, the percentage of operational sites that have undergone employee health and safety risk assessments is 100%.


CCCI

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 0212251054494L

Wanhua Chemical Group Co.,Ltd.

is in conformity with

GB/T 45001-2020/ISO 45001:2018

This certificate is valid for the following scope:

The certification's condition of multi-sites organization refer to Appendix (1)

The certificate changed on June 25, 2024

This certificate is valid to June 14, 2025

In the case that the organization regularly receives surveillance assessments, the certificate shall be valid when used together with the Notice for Maintenance of Use of Certificates and Logos.

Information about the certificate can be queried on the official website of CNCA (www.cnca.gov.cn).

Huaxia Certification Center, Inc.

General Manager:

Date of Issue: July 18, 2022

IAF CNAS

MANAGEMENT SYSTEM

CNAS C021-M

Occupational Safety

Each month, senior exevutives organize the safety committee meeting to widely listen to various safety audit situations at all levels, coordinate and solve safety issues, make collective scientific decisions, introduce safety control measures, and guide employees to practice the Company's safety philosophy. It strengthens regional safety responsibility, effectively implements a production management system centered on safety, improves the safety production responsibility list at all levels, and reinforces the implementation of safety production responsibilities through performance reports and performance evaluations. Also implements the excellence manufacturing system, consolidates and promotes the DNV Small Site Level 3 Assessment, and enhances the systematic management level of each unit and device. It formulates and implements the Engineering Area Management Responsibility System to motivate production personnel, promote the improvement of engineering quality and the raise of the CFHE Standard, and achieve high standard project delivery. It enhances the project manager's safety leadership, conducts contractor management audits with the project responsible department and contractor units as the main bodies, and effectively implements contractor responsibility.

For continuously improving the Safety production responsibility system and rules and regulations. In 2024, Wanhua Chemical continuously improved the Safety Production Responsibility System for all employees based on organizational structure changes and the identification of laws and regulations, ensuring the detailed implementation of the Safety Production Responsibility System. At the same time, according to risk control needs and regulatory requirements, 59 new or revised rules and regulations were added in 2024, bringing the total number of safety production rules and regulations to 322, laying a solid foundation for safety production management.

For continuously enhancing the safety production capabilities of all employees. In response to the safety awareness and capability issues of managers exposed in current safety production management, a series of courses have been developed for training and improvement: Through education on typical domestic and overseas accident cases, the safety awareness of managers at all levels is enhanced. Through education on laws and regulations such as the Criminal Law of the People's Republic of China and the Work Safety Law of the People's Republic of China, the awareness of safety production main responsibility and the initiative to perform duties among managers at all levels are improved. Through the top leader's safety talks and the learning and implementation of daily safety work requirements for managers, safety leadership is enhanced. Through the study and practice of the hazardous characteristics and control measures of common chemicals, the risks and controls of the Eight Major Hazardous Operations, inherent safety and process safety risk control, mechanical integrity and others, the safety professional capabilities of managers at all levels are effectively improved. Using the "1+2+3" model, accident warnings and mandatory professional learning courses are released weekly through the Wanhua Learning APP. In 2024, 231 courses have been released, and as of now, the platform has a total of 2,420 courses online, greatly enriching the fragmented learning resources for all employees.

Take multiple measures to continuously strengthen operation risk control. Wanhua Chemical has established a Safety Production Supervision Working Group to regularly carry out comprehensive safety production supervision, focusing on stubborn on-site hazards, non-routine operation management, personnel operations, etc. In 2024, 174 on-site safety supervisions were conducted in various parks throughout the year, 10 new or revised systems were added based on the management issues identified during supervision and inspection. Based on operation risk, we collected excellent cases of full-process safety control in 13 typical operation scenarios, organized employee learning through online learning platforms, further enhancing personnel safety awareness and operation risk control capability. We launched an intelligent supervision platform to achieve the integrated operation of the information system for special operations, personnel positioning system, and intelligent video surveillance, further enhancing the digital and intelligent control of operations.

In terms of emergency & accident management, it further improves emergency response plans for each position and conducts regular drills to continuously verify and enhance the effectiveness of the plans and employees' emergency capabilities; improves firefighting and emergency facilities, regularly inspects and tests processes and standards, implements inspection and testing responsibilities to ensure facilities are intact and effective; revises and publishes "Wanhua Chemical Accident Classification and Reporting Procedure" and "Wanhua Chemical Accident Investigation Procedure" to improve accident investigation methods and personnel participation requirements, enhancing investigation quality; improves accident analogy investigation mechanism to enhance the specificity, effectiveness and continuity of learning from accidents.

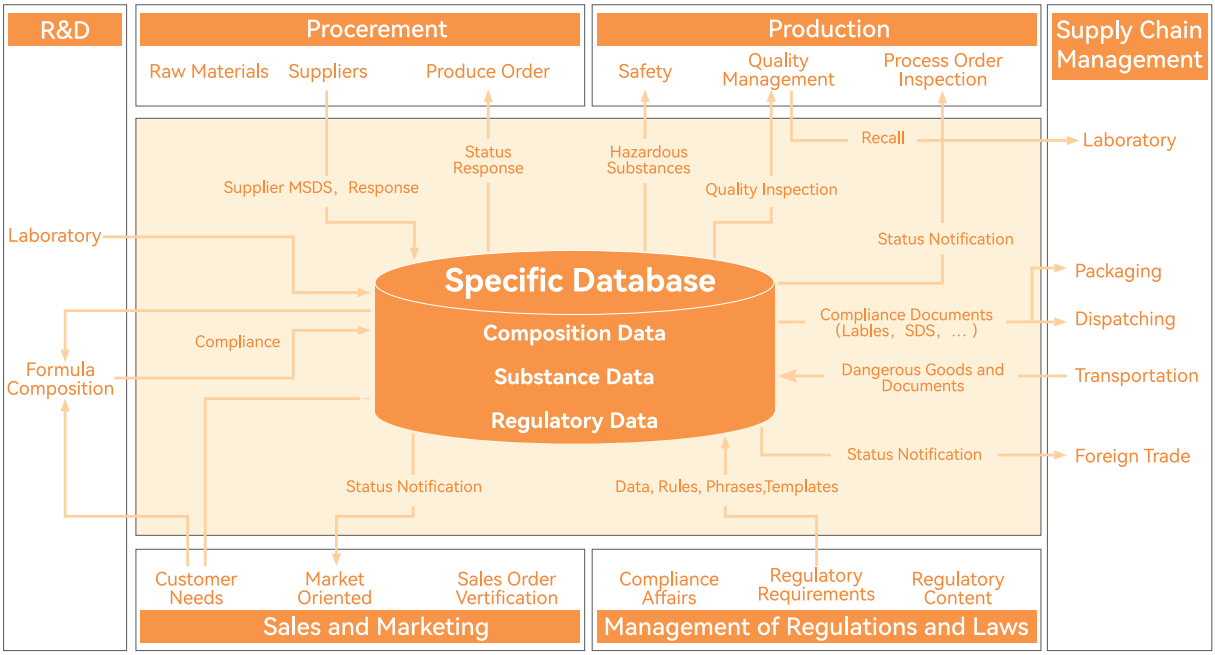
	2023	2024
Number of work-related injury deaths of employee	0	0
Recordable injury rate ofemployee (per 200,000 man-hours)	0.038	0.163
Employee absence rate due to work-related injury (per 200,000man-hours)	0.032	0.091
Number of work-related injury deaths of contractor	0	0
Recordable injury rate of contractor (per 200,000 man-hours)	0.013	0.013

Occupational Health

For continuously improving the Occupational Health Management System, it revised and published "Wanhua Chemical Occupational Health Surveillance Management System", "Wanhua Chemical Occupational Disease Hazard Detection Evaluation and Project Declaration Management System", "Wanhua Chemical Occupational Health and Occupational Disease Prevention Management Procedure", "Wanhua Chemical Occupational Disease Hazard Warning and Notification System"; it conducts annual detection and evaluation of occupational disease hazard factors, uses scientific and advanced methods for occupational disease hazard risk assessment, and implements effective control. Every year, Wanhua Chemical organizes comprehensive health examinations and special occupational health examinations for all employees, analyzes the relevant data, establishes occupational health surveillance records for employees exposed to occupational hazards, actively promotes occupational health management in the workplace to prevent occupational diseases and work-related illnesses. To improve employee health and ensure company compliance, Wanhua Chemical has implemented various measures such as defining the target groups for health examinations and organizing health activities to reduce the compliance risk of health surveillance. Through activities like the "Promotion Week of Law of the People's Republic of China on Prevention and Control of Occupational Diseases", it conducts occupational health education to enhance employees' health literacy in disease prevention and health maintenance, thereby reducing the probability of health issues caused by work. To create an occupational health atmosphere within the Company, Wanhua Chemical has organized a variety of engaging occupational health activities. These include First Aid Training, Knowledge Competitions, Health Expert Activities, and more. Additionally, there are activities such as the Fatty Liver Intervention Plan and Mental Health Lectures. In response to the newly introduced hydrogen fluoride process, Wanhua Chemical has organized Wanhua Hospital and Medical Station to jointly conduct lectures on the hydrogen fluoride emergency handling process.

Chemical Safety

Wanhua Chemical is committed to identifying, managing and reducing the impact on the environment, health and safety at every stage of the chemical lifecycle. Through information technology means, we achieve comprehensive regulatory supervision of raw material and supplier access, formulations, product SDS and labels, product sales, logistics and others, ensuring regulatory compliance at every stage.



In terms of product compliance, Wanhua Chemical actively responds to the "registration, evaluation, authorization and restriction" requirements for exporting chemicals in various countries or regions. We have completed the local market access processes in the European Union, South Korea, Turkey and other places in compliance, ensuring our products meet the requirements for human health and environmental protection in the export places. We pay attention to the latest regulatory developments in chemicals, promptly incorporating controlled substances, such as Substances of Very High Concern (SVHC), into the Company's control list and strictly controlling their use. Our product database stores safety data sheets in multiple languages regarding the safe use of products, and they are kept updating at all times. The Company has established 24-hour emergency hotline phone to quickly respond to accidents and emergencies related to chemicals. Customers and the public can contact at any time to obtain health, safety and environment information related to Wanhua products, facilitating customers, Regulatory agencies and consumers to understand how to safely use chemicals.

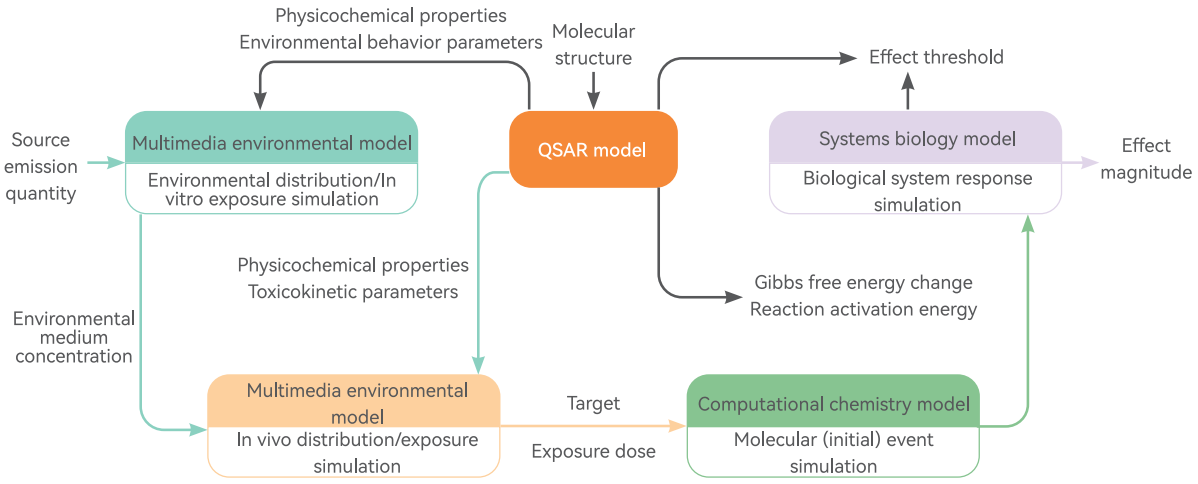
Compliance rate of purchasing and marketing of new chemical substances

100%

Compliance rate of purchasing and marketing of existing substances

100%

In terms of reduction and replacement of toxicological test, for products requiring relevant test, we always prioritize the protection of animal rights, actively seeking and adopting more humane and scientific testing methods. For animal experiments required by government regulations, we adhere to the organization/in vitro-in vivo sequence for experimental arrangements, and each animal experiment follows the 3R (Reduce, Replace, Refine) principles to fundamentally avoid unnecessary suffering for experimental animals. For toxicological data not mandated by the government, the Company has adopted a self-developed AI Computational Toxicology Prediction Model to comprehensively assess the health and safety of chemical products, avoiding animal experiments.



In terms of customer care, Wanhua Chemical is very concerned about the safety and health protection of customers when using products. We communicate potential health and safety impacts of products to customers through customer visits and exchanges, and by creating product manuals and other means, sharing best practice solutions to eliminate impacts. We have established a Customer Responsibility Care Team and a Customer Feedback Process, allowing customers to provide feedback on any health, safety or environmental issues during product use.

In terms of storage and transportation safety, we have established an internationally advanced Storage and Transportation Safety Management System and continuously improve it. We manage risks during handling, unloading, storage and transportation of chemicals, preventing and controlling the adverse effects of chemical releases on safety, health and the environment, contributing to the Company's sustainable development. The safety management extends beyond the factory gates. We conduct safety management throughout the entire process of chemical storage and transportation, developing and introducing advanced management tools to enhance safety management levels and efficiency. In terms of storage and transportation safety management, we adhere to the core values of "responsibility care", focusing on the safety and health of storage and transportation stakeholders, and promoting the achievement of storage and transportation safety performance.

Storage and Transportation Safety Performance

Mode of Transport	2023 Safety Mileage	2024 Safety Mileage	2023 Accident Rate	2024 Accident Rate
Road Transport	**22667** million km	**25889** million km	**0.035** million km	**0.032** million km
Ship Transportation	**1152** million nautical miles	**1352** million nautical miles	**0.002** million nautical miles	**0.002** million nautical miles

In 2024, the Company achieved a comprehensive iterative upgrade based on the application of equipment with Advanced Driver Assistance Systems (ADAS), successfully developing the "Facial Fatigue Recognition + Road Risk Intelligent Alert" system, realizing the visualization of driver and vehicle en-route safety status, with functions such as real-time alerts for national high-risk road sections and severe weather. This function safeguards the Company's dangerous goods carriers, over 1,000 vehicles, and more than 1,300 drivers. At the same time, we promoted the visualization of Ship Safety Management, achieving full video coverage of chartered ships, and gradually using AI to identify and alert unsafe behaviors of crew members, filling the gap in en-route ship safety management and preventing ship accidents caused by crew operational errors, watchkeeping negligence, etc.

As of December 2024, Wanhua Chemical's road transportation safety milestone surpassed 250 million km. The Internet of Things (IoT) empowers logistics safety, further enhancing safe and high-quality delivery capabilities, thereby improving the customer satisfaction. The Company not only continuously improves the safety management level of its own delivery carriers but also adheres to the responsible care guidelines to jointly empower and enhance with partners. In 2024, the Company provided defensive driving instructor training for 30 customers' self-pickup and procurement delivery carriers, continuously improving the safety of drivers' driving behaviors.

7.3 Product and Service Quality

At Wanhua Chemical, we deeply understand that product quality and service are the foundation of company survival and development, as well as a solemn commitment to customers, shareholders and society. Therefore, we always adhere to the principle of quality first and customer foremost, making quality management and service optimization one of the core strategies of company development. In the past five years, the Company has won recognition from domestic and international rating agencies and the trust of customers with its excellent credit record and outstanding product performance. There have been no delivery interruptions or product recalls due to product quality safety issues. The Company has successively won multiple honors such as the China Quality Award, Shandong Provincial Governor Quality Award, and Yantai Integrity Model Enterprise.

In terms of Quality Management System and Certification

Wanhua Chemical has established a comprehensive and complete Quality Management System. By strengthening internal audit processes, we continuously optimize the Quality Safety Certification Mechanism to ensure that every stage from design to delivery meets the highest standard. In addition, the Company has established a Quality Assurance (QA) System that covers all employees, processes and functions. Through special audits, cross audits and in-depth exchanges with third-party institutions, the Company strictly supervises the implementation of various systems, continuously enhancing product quality and safety management capabilities, and is committed to providing customers with high-quality products that exceed expectations.

Certification Category		Certification Field
System	ISO 9001	Quality Management
System	IATF 16949	Automotive Quality Management System
System	ISO 22000 FSSC 22000	Food Safety Management System
Product	ISO 14067	Carbon Footprint of Products
Product	UL	Recycled Materials
Product	ISO 14024	Environmental Labels
Product	GRS	Global Recycle
Product	Halal	Food Safety
Product	Kosher	Food Safety
Laboratory Accreditation	ISO 17025	Testing and Inspection Laboratory

In terms of product lifecycle management and safety compliance: Utilizing the advanced SAP System, Wanhua Chemical has pioneered the implementation of Chemical Raw Material Admission Assessment and Product Sales Compliance Assessment in China, establishing a Lifecycle Product Safety Management Platform that covers the raw material side, production side, logistics side and customer side. On the raw material side, we have established a Chemical Specification Database (PS&S System) to rigorously screen and control raw materials, and through information technology means, seamlessly transmit data to research and development, procurement, production, logistics and other links, ensuring the safety compliance of products from the source. On the production side, we have developed a detailed Standard Operating Procedure Guide, equipped with professional safety management engineers, and established a Safety Warning and Control System to ensure the safety and stability of the production site. In terms of logistics side, we implement the Carrier Compliance "One-Vote Veto" System and provide continuous technical guidance and emergency handling support to ensure the safety of the transportation process. On the customer side, we offer comprehensive After-Sales Support Service, including product usage technical guidance, troubleshooting, empty barrel recycling, etc., ensuring absolute safety during the use and storage process for customers.

In terms of customer service and complaint mediation mechanism: Adhering to the customer-oriented philosophy, the Company has established an efficient and comprehensive customer complaint and mediation mechanism. We have established a 24-hour customer service hotline and opened multiple channels such as Customer Service Center Email, WeChat, CRM Records, and Company Employee Feedback to ensure rapid response to customer requirements and timely resolution of customer issues. Through continuous optimization of customer service processes, we strive to enhance customer experience, increase customer satisfaction and loyalty.

Sustainable Supply Chain

Wanhua Chemical is committed to building a green, responsible and resilient supply chain system, providing customers with detailed products and supreme service. This not only reflects the Company's high regard for environmental protection and social responsibility but also demonstrates its firm determination and active actions in promoting the sustainable development of the industry chain.

Supply Chain Management

Wanhua Chemical always places supply chain security at the strategic core, recognizing the importance of a stable and reliable supply chain for the Company's sustainable development. Against the context of global layout, the Company actively engages in optimizing the global network layout process through in-depth research and precise planning, continuously building an overseas warehousing operation network. In 2024, the continuous global network layout safeguarded stable supply for overseas customers.

In terms of supplier selection, we continuously deepen cooperation with global leading shipping companies, establishing long-term stable relationships to ensure stable shipping space for global shipments. Meanwhile, by optimizing the operation network with service providers and innovating transportation modes, we shorten export transportation time, improve punctuality rates and ensure stable supply for overseas customers.

To strengthen global delivery capabilities and resolve sudden customer issues, we expand railway and road transportation networks, creating the agile delivery system. Together with several leading enterprises, we have established a global air transport network layout, achieving 24-hour delivery for urgent needs, thereby enhancing logistics efficiency and customer satisfaction.

Sustainable Procurement

As the concept of sustainable development becomes deeply rooted, themes such as labor and human rights, health, safety and environment have been incorporated into important procurement consideration criteria. As the first Chinese company to join TfS (Together for Sustainability), we actively participate in TfS initiatives, sharing sustainable development assessment results of over 20,000 industry suppliers with TfS organization members to enhance the sustainability level of the supply chain. The coverage rate of the total procurement amount of suppliers participating in TfS sustainable development audits by the Company has reached 72%, with more than 80% of key chemicals suppliers undergoing TfS audits.

To ensure that suppliers' performance in sustainability meets the requirements, the Company regularly organizes on-site audit work for suppliers. Through this approach, not only can we gain an in-depth understanding of the actual situation of suppliers in their operations, but we can also establish effective communication channels with suppliers, promoting mutual progress on the path of sustainable development.

Wanhua Chemical's MDI Drives the Innovation of Molded Pallets, Leading the New Era of Green Packaging

In the wave of global sustainable development, green packaging has become a key direction for transformation in the industrial sector. With outstanding foresight and a high sense of social responsibility, Wanhua Chemical, leveraging its deep technological accumulation and spirit of innovation, has successfully applied MDI to the field of molded pallets. Its excellent low-carbon characteristics have made it stand out as a significant force in promoting global environmental protection efforts.

Green Environmental Protection: Reshaping the Green Ecology of Global Industrial Packaging

The production of traditional wooden pallets relies heavily on deforestation, putting considerable pressure on the ecological environment. In contrast, MDI molded pallets have pioneered an innovative path of green recycling. Firstly, they primarily use waste wood as raw materials, repurposing resources that might otherwise be discarded, thus realizing a circular industry for wood. Secondly, the molecular structure of MDI adhesive is stable, releasing no formaldehyde during storage and use, with zero formaldehyde added during production, ensuring occupational health.

Calculations show that 1 million low-carbon MDI molded pallets can utilize approximately 16,150 tons of waste wood. This not only significantly reduces reliance on new wood and decreases deforestation but also adheres to the low-carbon concept, aiding global forest protection, truly achieving a win-win for environment and economy.

Through SGS's evaluation principles based on the lifecycle, a lifecycle carbon emissions calculation was conducted for the greenhouse gas emissions of MDI molded pallet products. The evaluation results show: a dynamic load of 2-3 tons for an MDI molded pallet product has a product carbon footprint of 5.967 kg of carbon dioxide equivalent from cradle to grave; reducing carbon emissions by over 50% compared to traditional molded pallets and over 70% compared to traditional wooden pallets. In the global context of striving to achieve carbon reduction targets, the low-carbon advantage of molded pallets is particularly valuable.

Performance Stability: Laying a Low-carbon Foundation for Global Green Logistics

In industrial production and logistics transportation, the performance stability of packaging materials is crucial. As a high-performance isocyanate product, MDI's unique chemical structure endows molded pallets with excellent stability. Traditional wooden pallets are prone to deformation in humid environments, leading to a decrease in load-bearing capacity and even mildew and damage the packaged product; they may also crack under significant temperature changes. In contrast, MDI molded pallets, with their unique structure and material properties, can consistently maintain stable performance. Whether in high-temperature tropical regions or high-humidity coastal regions, they can reliably complete the tasks of product packaging and transportation.

Convenient Export: Accelerating Low-carbon Circulation in Global Green Trade

In today's increasingly interconnected global trade, the export fumigation process of traditional wooden pallets has become a major obstacle to the development of green trade. The fumigation process not only requires a significant amount of time and financial cost, but due to its complexity and strict standards, any slight oversight can lead to export delays, increasing the company's operational risk. More critically, the chemical agents and others used during the fumigation process may also cause some environmental pollution. Due to the highly eco-friendly nature of its production process and the stability of its materials, MDI molded pallets meet the import standards of most countries and regions internationally, allowing them to be exported directly without the need for cumbersome fumigation treatment. This advantage not only saves the Company's a significant amount of time and money, but more importantly, it accelerates the global circulation of green trade, reducing the environmental burden during the trade process.

Wanhua Chemical's MDI molded pallet solution is not only a profound insight and precise response to customer requirements but also a firm commitment to social responsibility. It powerfully demonstrates through practical actions that the Company can fully achieve environmental protection and social sustainable development while pursuing economic gains. As an outstanding representative of green industrial packaging, MDI molded pallets are reshaping the landscape of industrial packaging with their strong environmental advantages, stable performance and convenient export characteristics, driving the global industry towards a green and sustainable direction. Wanhua Chemical will also uphold its original intention and more actively promote the widespread adoption of green packaging transportation in the future.

Equal treatment for small and medium-sized enterprises

In the course of the Company's development, we have always adhered to the principles of fairness and justice, committed to establishing long-term stable cooperative relationships with various partners. Among them, small and medium-sized enterprises, as an important force in economic development, play an indispensable role in promoting innovation, employment, prosperous market, etc. To ensure that small and medium-sized enterprises can obtain equal opportunities and treatment in cooperation, we have taken a series of active and effective measures in multiple aspects.

In terms of policy and system support: The Company's "Bidding Management System" clearly stipulates that all bidders are given equal bidding opportunities, explanation opportunities and negotiation opportunities. During the cooperation process, we strictly operate according to the cooperation guidelines, without discrimination based on the size of the enterprise. Through the implementation of these policies and systems, we have created a fair competition market environment for small and medium-sized enterprises, promoting their healthy development.

In terms of payment timeliness rate assurance: We actively take measures to improve the payment timeliness rate, clearly stipulating payment time, method and conditions in contracts signed with all suppliers, including small and medium-sized enterprises. Through clear and explicit contract terms, we ensure both parties have a clear understanding and consensus on payment matters, enabling them to accurately anticipate the timing of fund recovery, avoid disputes arising from payment issues, and reasonably arrange their own operations.

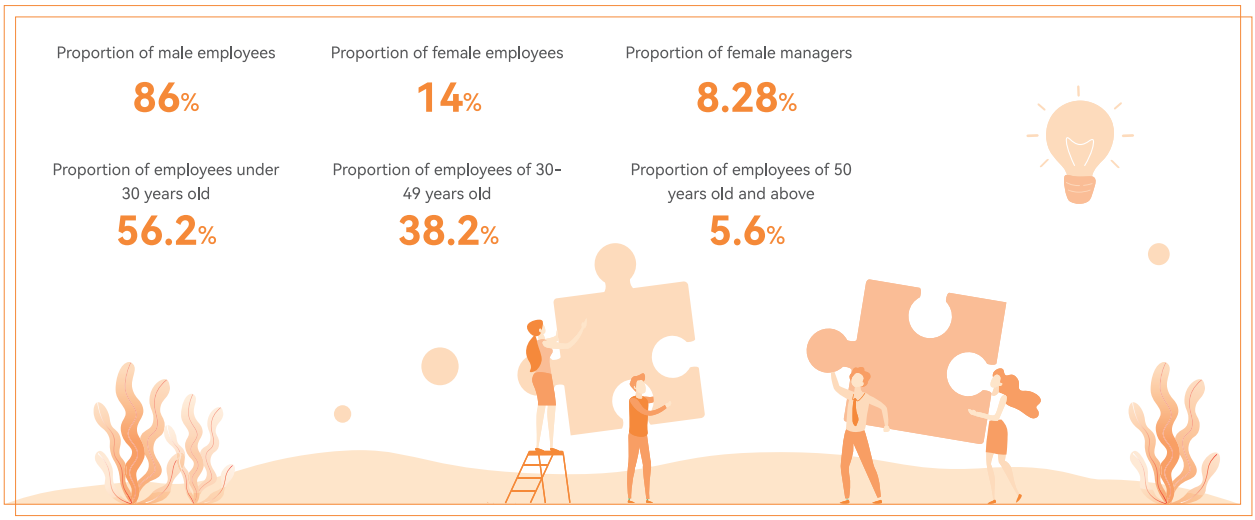
In terms of capacity building support: We focus on sharing market information and management training with small and medium-sized enterprises. By organizing events such as the Wanhua Chemical Suppliers Conference and the TfS Suppliers Conference, we provide a platform for communication and cooperation for small and medium-sized enterprises. In these events, we do not differentiate based on the size of the enterprise and welcome all eligible enterprises to register and participate. By sharing information on market dynamics, industry trends and other information, we help small and medium-sized enterprises to timely understand changes in market demand, adjust their business strategies, and enhance their market competitiveness.

Equal treatment for small and medium-sized enterprises is a principle we have consistently adhered to, and we will continue to maintain and continuously improve relevant measures. By improving payment timeliness rate, formulating specialized policies and systems, providing capacity building support, and establishing good communication and feedback mechanisms, we are committed to creating a fair, just and harmonious cooperative environment for small and medium-sized enterprises. In the future, we will continue to strengthen cooperation with small and medium-sized enterprises to jointly promote the sustainable development of the economic and social environment.

Suppliers Conference

Career Development and Training

Centered around the concept that "talents are the most important strategic resources of the company", Wanhua Chemical implements a talent project focusing on "attracting, cultivating, leveraging, arranging, and retaining talents". The Company inspires talents with a noble mission and grand goals, attracts talent with competitive compensation and incentive mechanisms, cultivates talents through scientific systems and methods, and retains talents with excellent culture and a fair and just environment. This provides endless motivation for the Company's independent innovation, accelerating the Company's efforts to create a new high ground for talents aggregation and high-quality development.



In terms of employee development channels, the Company continuously optimizes and improves the employee development system, builds the Company's talent echelon supporting the Company's business development needs. The promotion standards of the Career Development System are open and transparent, with promotion/appointment results publicly announced to prevent career discrimination. Currently, the Company's Employee Career Development System consists of four categories: Management Dual Sequence, R&D Dual Sequence, Production Engineer Sequence, and Job Skill Certification System Sequence.

Professional & Management Dual Sequence: Employees are divided into Professional Rank Sequence and Management Position Sequence based on whether they hold management positions; employees not holding management positions follow the Professional Rank Sequence, while those holding management positions follow the Management Position Sequence. There is a certain correspondence between the Professional Rank Sequence and Management Position Sequence, with promotions executed according to their respective standards.

R&D Dual Sequence: Applicable to positions such as process package design, technology development, process optimization, product R&D, etc.

Production Engineer Sequence: Applicable to engineer positions directly related to production technology, such as process engineer, electromechanical instrument engineer, production technology engineer, and device HSE engineer.

Job Skill Certification System Sequence: Applicable to frontline operators in each production department/device of Wanhua Chemical Group Co., Ltd. and its wholly-owned subsidiaries.

Percentage of employees receiving regular performance and career development reviews

100%

Employee training coverage rate

100%

Average hours of training per employee

107.6h

In terms of employee training, Wanhua University has established a comprehensive course system covering five major areas: management foundation, new employee orientation, production specialty knowledge, general skills, and functional specialty knowledge. Management foundation course progresses from leadership foundation class to advanced class, enhancing management and leadership skills; new employee orientation focuses on rapid integration and mastery of job skills; production specialty knowledge course extensively covers corporate culture, safety, process, product and others, ensuring comprehensive enhancement of professional knowledge and skills; general skills course emphasizes the cultivation of professional quality, office software, sales and English ability; functional specialty knowledge course provides in-depth training for specific fields. This system is characterized by extensive content, high participation, frequent training, diverse cultivation methods and rigorous assessments, aiming to achieve excellent training outcomes.

Diversified courses tailored for employees from different systems have sparked a wave of learning, progress and growth among all employees. In 2024, the total offline participation hours in diversified courses by employees reached 585,000 hours.

Diversified Training Methods

Development of Talents in Production System

Develop differentiated development strategy for different development stages and different groups;
Make good use of the system, create a good atmosphere, extract good experiences and implement good development;
Empower employees through the development system and Practical Training Platform, forming closed-loop verification with a focus on practical effectiveness.

Three Steps, Three Goals

Conduct " Three steps, three goals " activities for production employees, namely: retraining, relearning and re-employment, to achieve the goals of being able to start, stabilize and stop effectively.

Engineer Special Training Camp

The training for process engineers focuses on enhancing specialized qualities and practical abilities to address the real pain points that hinder production operations.

Personnel Training for Supply Chain

To lay a talent foundation for building a Supply Chain Management System, we accelerate the linkage of various stages to achieve coordination between the supplier side and consumer side, thereby streamlining the entire order delivery process centered on customers.

7.3 Employment and Benefits

We adhere to a people-oriented approach, creating an international platform that supports talents development, where personal growth and company growth complement each other, forging the best employer brand. The Company views recruitment as part of its global talents project, reserving talents and providing intellectual support for the long-term strategic goals of the Company and society.

Number of new employees	Employee turnover rate	Formally elected employee representatives or employees covered by the collective agreement
4189 Person	**2.24**%	**100**%

Based on the Company's industry position and strength, it continues to leverage its upstream enterprise advantages, deeply cultivating school-enterprise cooperation, and continuously enhancing its influence by focusing on both the industry education and the student.

Industry	● In the Ministry of Education's Supply and Demand Matching Employment Education Project, it undertook 39 schools with 58 projects, supporting funding of 1.05 million. ● Selected in the Third Batch of Industry-Education Integration Enterprises Construction and Cultivation List of Shandong Province ● As a Vice President Unit, attended the 2024 China EduChem Conference (EduChem2024) and the Tenth Session of Fifth Council Expanded Meeting of the China Education Association of Industry, and delivered a keynote Report.
Students	● Accepted 30 batches of 837 students from undergraduate institutions for chemical engineering internships ● Accepted 40 batches of 1,950 students from vocational institutions for chemical engineering internships

For Wanhua employees around the globe, the Company has established the Wanhua Talent Care System, based on statutory benefits and secured by company benefits. Special benefits are set for female employees and employees in difficulty, the employee club is established, and a variety of employee activities are organized, ensuring peace of mind at work and making Wanhua Chemical the place employees aspire to be!

Statutory Benefits	Social insurance and provident fund, leave (statutory holidays, paid annual leave, marriage leave, maternity leave, parental leave, home leave, sick leave, etc.), mortuary grant-in-aid, offerings to relative pension, one-time work-related death compensation.
Company Benefits	200,000 yuan interest-free housing loan, lunch subsidy, childcare fee, shift allowance, team building fee, high temperature allowance, heating fee, holiday gift money, birthday gift money, wedding gift money, supplementary insurance, labor protection.
Difficulty Assistance	For employees facing "life difficulties due to major illness, serious illness or significant changes in family circumstances", a difficulty subsidy application and mutual aid fund have been established.
Matchmaking Plan	In 2024, the Company jointly organized 26 matchmaking events with external parties, with a total of 1,500 employees participating; a singles database was established to effectively address the single status of employees.
Caring for female employees	The Company pays special attention to female employees, and the Union annually selects "model post for meritorious service" and "female model worker". To alleviate the pressure of childbirth and work for female employees, the Company, while strictly adhering to the national and local maternity leave policies, has introduced the "Wanhua Chemical Extended Maternity Leave Policy", allowing breastfeeding female employees to apply for an extended maternity leave of four months in addition to the state-mandated maternity leave. The Company has established high-standard mother's rooms in various office areas and has added dedicated shuttle buses for breastfeeding female employees returning to work.

"Bloom Her Power" Women's Leadership Forum – Empowering the Future of the Industry with Women's Strength

In response to the Global Sustainable Development Initiative and to deepen the construction of a diverse culture within the Company, Wanhua Chemical held the "Bloom Her Power" Women's Leadership Forum on the occasion of International Women's Day. This event not only provides female employees with an opportunity to share experiences, broaden horizons and enhance communication but also promotes the Company's ESG Practices and the co-creation of social value.

The Forum invited several female managers from enterprises to share experiences and insights related to "Women's Leadership". Through real cases, it systematically deconstructed the growth paradigm of women's leadership in the chemical industry. This not only provides a holistic thinking framework for women's career development from individual growth to organizational empowerment but also helps women unleash their potential, unite team efforts, form the habit of always pursuing high goals, and achieve results beyond expectations. Ultimately, it contributes more "her power" to enterprise transformation, industry progress and social sustainable development!

As a global leading chemical new materials company, Wanhua Chemical has recently implemented multiple measures to create an inclusive workplace environment, providing more growth and promotion channels for all employees. In the future, Wanhua Chemical will continue to assist employee growth through organizational mechanisms, cultural cultivation, social collaboration and others, empowering the industry to build a more resilient sustainable development ecosystem and contributing to the achievement of global dual carbon goals.

Percentage of employees returning to work after parental leave

100%

Retention rate of employees after parental leave

100%

In terms of employee democracy and equality, since joining the United Nations Global Compact in 2019, we have integrated the requirements of the United Nations Global Compact and related principles into the Company's strategy, culture and daily operations. We have established relevant human rights policies and systems against discrimination, forced labor, harassment and abuse, and the prohibition of child labor. We conduct training on anti-discrimination, anti-harassment and others, and have a complete reporting and complaint procedure. Whistleblowers can report to the Company via phone, text message, fax, letter, email, face-to-face meetings, and other effective methods, and they can report anonymously. At the same time, the Company continuously improves the functions of the Union and the construction of the Home of Employees, encouraging and safeguarding the rights of the Union and collective bargaining.

During the reporting period, percentage of employees who joined the Union

100%

Percentage of employees who received training on diversity, discrimination and harassment

100%

Social Responsibility

Wanhua Chemical upholds the vision of becoming an innovative, world-leading chemical company, admired by our employees and respected by the community. It actively undertakes corporate social responsibility, earning widespread acclaim and continuously contributing to building a better society.

Social Development

In terms of fulfilling corporate social responsibility, we collaborate with society, focus on community, engage in public welfare, and care about education. Utilizing our industrial advantages and corporate characteristics, Wanhua employees globally actively take on the responsibility of the community they are in, supporting local cultural education and social welfare undertakings, and helping vulnerable groups in society.

Public Welfare Science Popularization – Wonder Lab

In 2024, Wanhua Chemical's Wonder Lab traveled through several cities including Meishan, Yantai, Qingdao, and Shanghai, etc., leading over 1,500 primary and secondary school students into the "Wonder Lab". By integrating professional chemistry knowledge into fascinating science popularization classes and conducting interesting experiments, it explores the wonders of chemistry, helping more people establish correct scientific concepts and inspiring the passion for exploring the unknown.

Winning "Social Responsibility Contribution Enterprise" in 2024 China Chemical Logistics Industry Again

On November 28, 2024, Wanhua Chemical, based on its effective practices in the integrated management improvement of group logistics safety and loading and unloading efficiency, once again won the title of "Social Responsibility Contribution Enterprise" in 2024 China Chemical Logistics Industry.

Campus Donation Activity

In 2024, Wanhua Chemical, in collaboration with 6 domestic household brands including KUKA, MAN WAH Holdings, SINOMAX, Glory Home, BLUEBOX and EON HOME, donated tens of thousands of memory foam student mattresses to 8 universities including East China University of Science and Technology, Tianjin University, Dalian University of Technology, Beijing University of Chemical Technology, Xi'an Jiaotong University, China University of Petroleum (East China), Fuzhou University and Jiangnan University. Through the personal experience of students, it aims to let them feel how chemical materials empower a better life, thereby cultivating a new habit of sleep consumption among the younger generation and contributing enterprise strength to protect student health and cultivate research talents.

Wanhua Chemical and Partners Supporting Post-disaster Reconstruction in Vietnam

In 2024, the northern part of Vietnam was hit by typhoon, destroying many houses of local residents who urgently need improvement of living conditions. Wanhua Chemical (Vietnam) Co. Ltd., together with local partners, donated 4,500 m^2 PU corrugated sheets to areas such as Xuan Thuong, Xuan Hoa in Lao Cai Province and Muong Hoa Village in SAPA City, helping over 100 families rebuild their homes.

Rural Revitalization

Wanhua Chemical actively participates in rural revitalization, promoting rural development from multiple dimensions such as infrastructure improvement, industrial support, cultural enrichment and public welfare care, striving to paint a beautiful picture of rural revitalization and becoming an important driving force for rural prosperity.

Case

In 2024, Wanhua Chemical assisted Yashan New Village in Taocun Town and Xingfu New Village in Guandao Town, Qixia City, Shandong Province, donating 2 million yuan in aid funds and materials.

In Yashan New Village, which primarily focuses on cherry cultivation, Wanhua Chemical, after thorough research, helped construct four mountain roads totaling over 2.5 km and 6,000 m^2, completing road hardening before the cherry harvest, greatly facilitating farmers' access to the mountains during busy farming seasons.

At the same time, with the help of Wanhua Chemical, this village successfully drilled two deep water wells of 260 meters and 280 meters, effectively solving the local residents' water using issues; built two environmentally friendly public toilets, and purchased 10 fire extinguishers to aid in forest fire prevention, protecting the rural ecological environment.

Additionally, the Company invited experts from the Institute of Fruit Science of the Yantai Academy of Agricultural Sciences to provide practical planting technology training for farmers, promoting the modernization of local agriculture, with the theme "Current Situation and Key Cultivation Technology of Yantai Cherry Industry", combining theoretical teaching with field practice.

At Xingfu New Village, Guandao Town, Wanhua Chemical effectively improved the village road lighting by installing 120 solar street lights. Meanwhile, it also addressed the cultural life needs of the villagers by purchasing various musical instruments such as yangqin, guzheng, saxophone, speaker and waist drum for the Xingfu New Village art team, enriching the villagers' spiritual and cultural life.

Data Security and Customer Privacy Protection

In terms of data security and customer privacy, Wanhua Chemical continuously establishes and improves technical preventive measures, forming a technical protection system from six levels: boundary security, network security, endpoint security, application security, server security, and data security, providing necessary technical support for the Company's data security and customer privacy protection. To effectively prevent and handle information security incidents, the Company has formulated the "Information Security Incident Management System", covering emergency procedures, personnel division, incident level definition, and emergency plans, etc., and regularly conducts emergency drills.

The Company has improved its Information Security Management System in accordance with the ISO/IEC 27001 Standard, formulating management systems such as the "Information Security Management Manual", "Third-party Information Security Management System", and "Personal Information Protection Management Measures". It has obtained the ISO/IEC 27001 Information Security Management System Certification accredited by both the China National Accreditation Service for Conformity Assessment (CNAS) and the United Kingdom Accreditation Service (UKAS). The Company conducts regular annual maintenance of the ISO/IEC 27001 System as required, continuing in-depth research in the fields of information security and data protection, safeguarding data security and customer privacy, and continuously enhancing data security assurance capabilities to provide customers with more secure and reliable services.


DNV

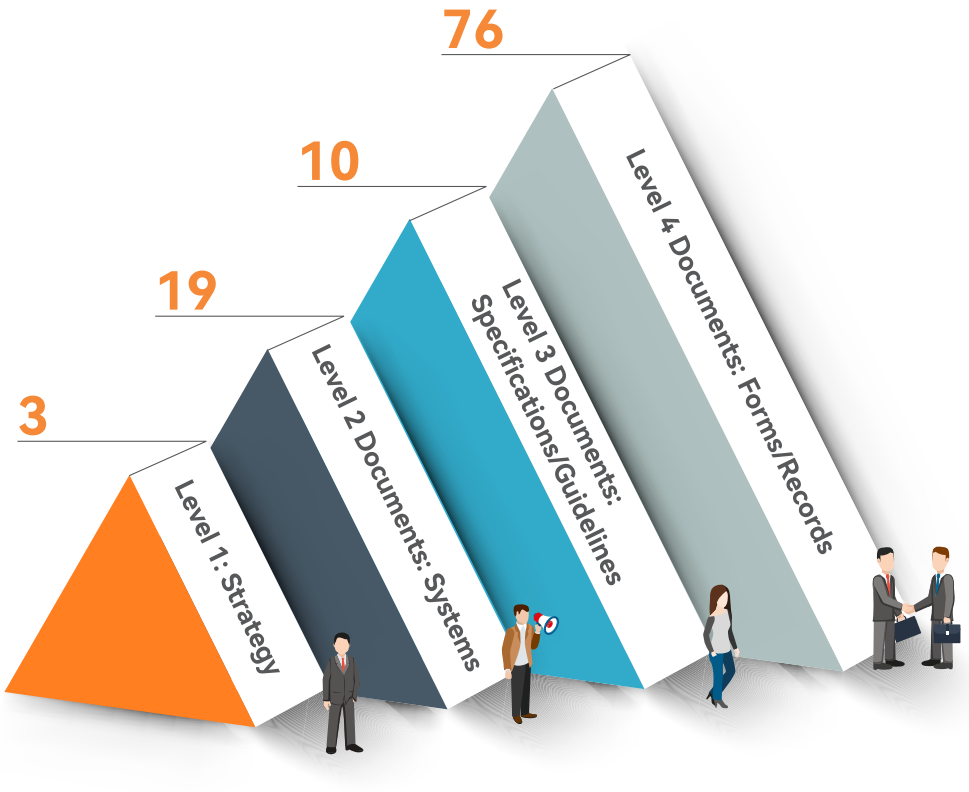
MANAGEMENT SYSTEM CERTIFICATE

Wanhua Chemical Group Co., Ltd.

DNV

MANAGEMENT SYSTEM CERTIFICATE

Wanhua Chemical Group Co., Ltd.



Architecture Diagram of Information Security Management System

For the management of confidential information, the Company has established systems such as the "Confidentiality Management System", analyzing the impact of information destruction on customers, individuals, enterprises and other relevant parties. Information is classified and graded, with corresponding measures taken to protect it, reducing the risk of information leakage. At the same time, the Company conducts quarterly confidentiality audits, including sensitive information protection, customer information protection, etc., and continuously supervises the implementation of work.

The Company strictly protects customer privacy information, adheres to the customer's "Confidentiality Agreement", ensures that all activities meet customer information security requirements, and regulates the management of customer privacy information and project information in business processes including collection, storage, use, transmission, disclosure and deletion, preventing the leakage, loss or unauthorized access of customer information. At the same time, the Company requires all suppliers to sign the "Confidentiality Agreement" and comply with the confidentiality of information.

The Company organizes annual confidentiality and information security quizzes for all employees, including content related to data security and customer privacy protection, and other aspects, ensuring that all employees can participate in the quizzes each year to strengthen confidentiality awareness; conducts phishing email tests irregularly to assess employees' safety awareness levels, encouraging them to gradually develop good safety habits.

The Company has established a comprehensive complaint reporting and feedback mechanism for information leakage, allowing both internal and external personnel to file complaints and reports through various means such as email and phone.

No substantiated complaints concerning breaches of customer privacy and loss of customer data were received by the Company this year.

05

Abide by the Governance Code

We strictly adhere to business ethics and compliance standards, continuously optimize the corporate governance structure, and improve the ESG management mechanism to support the sustainable development of the Company with efficient and responsible governance.

5.1 Corporate Governance

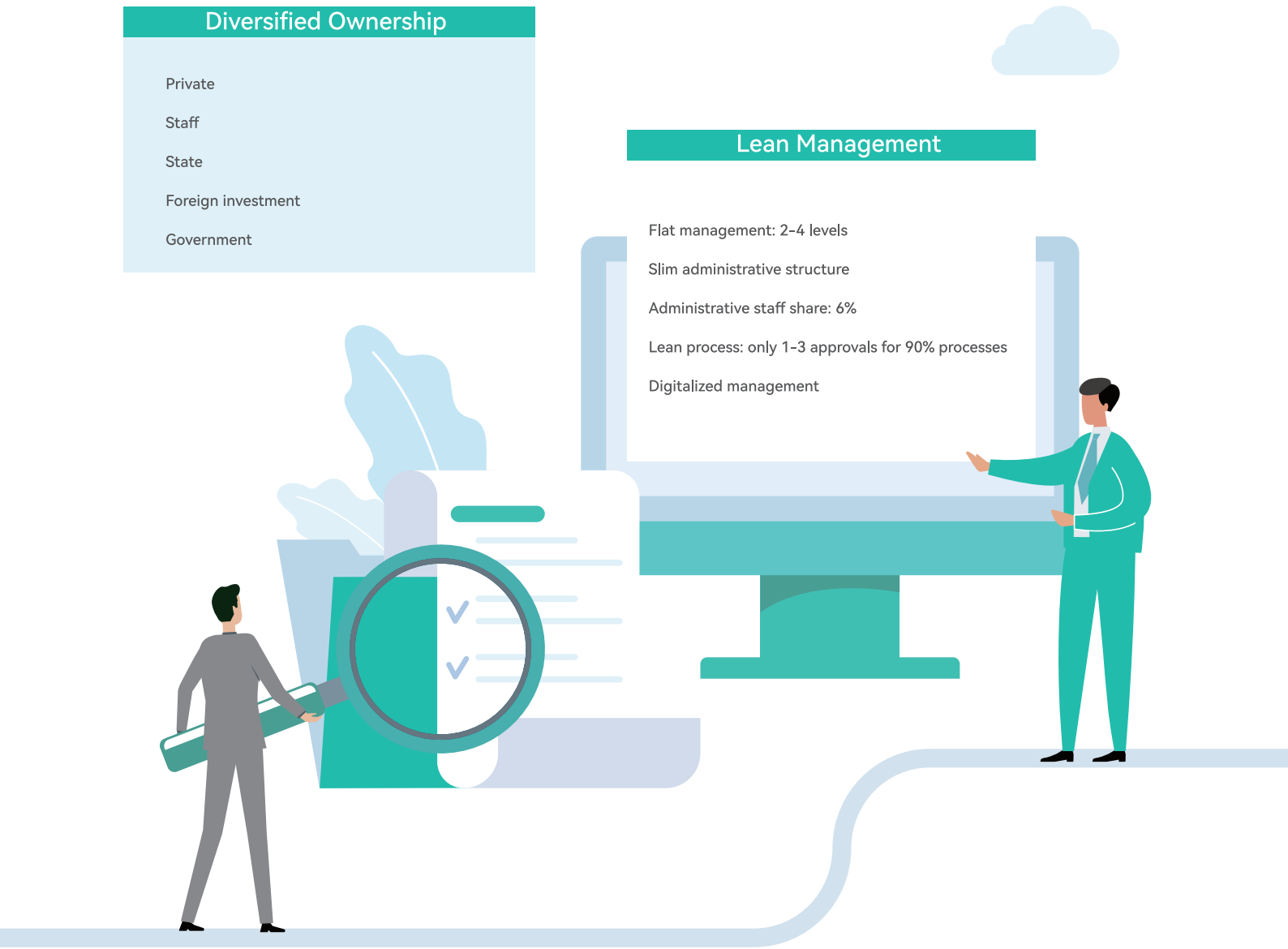
Wanhua Chemical is sparing no effort in building a modern corporate governance system, further adapting the production relations to the requirements of productive forces. The company's system and mechanisms are more in line with the requirements of market laws, with clear, standardized operations and responsibilities of the general meeting of shareholders, board of directors, supervisory board and senior management. The management is fully and reasonably authorized, and the company's ability to participate in market competition continues to strengthen. The company's modern corporate governance capabilities continue to improve, with flattened management levels, simplified departmental structures, efficient cadre teams, streamlined process management, and intelligent business management.

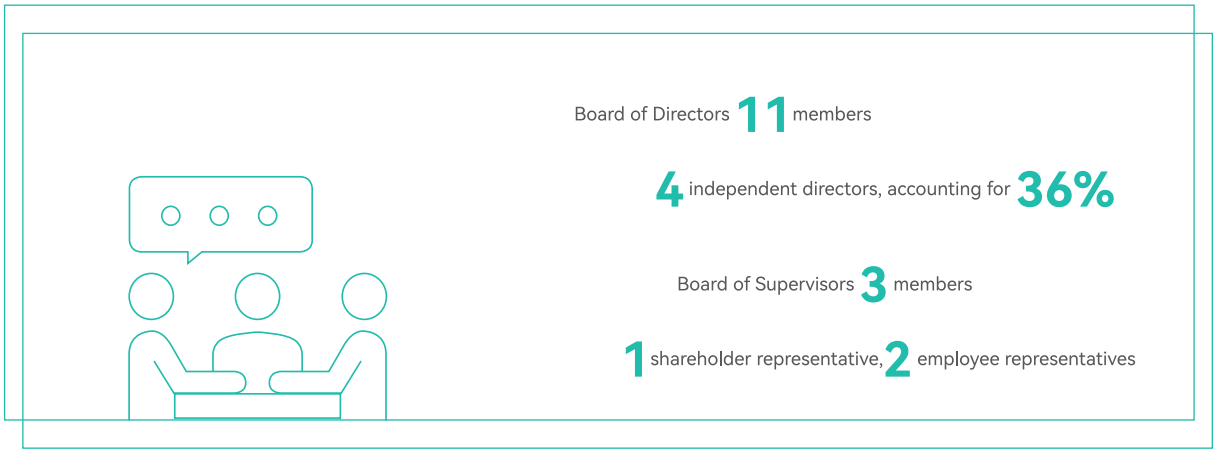
Diversified Ownership

- Private
- Staff
- State
- Foreign investment
- Government

Lean Management

- Flat management: 2-4 levels
- Slim administrative structure
- Administrative staff share: 6%
- Lean process: only 1-3 approvals for 90% processes
- Digitalized management





The Company adheres to the principles of Diversity, Independence and Professionalism. The list of candidates for directors and supervisors is submitted to the Shareholders' Meeting for voting by way of proposal, as follows:
The Company's Board of Directors, Board of Supervisors, or shareholders holding individually or collectively more than 1% of the Company's issued shares may propose independent director candidates. However, nominators must not nominate individuals with whom they have a conflict of interest or those closely related to them who may affect independent performance. Legally established Investor Protection Institutions may publicly request shareholders to delegate them to exercise the right to nominate independent directors. The Company's Board of Directors, Board of Supervisors, or shareholders holding individually or collectively more than 3% of the Company's issued shares may propose non-independent director and shareholder representative supervisor candidates, subject to election by the Shareholders' Meeting.

Nominators of directors and shareholder representative supervisors must obtain the consent of the nominees before nomination. Nominators must thoroughly understand the nominees' profession, educational background, professional titles, detailed work experience, all part-time positions, and whether there are any significant dishonesty or other adverse records, etc.; whether there is any relationship with the Company or its controlling shareholder and actual controller; the number of shares held in the Company; and whether they have been penalized by the China Securities Regulatory Commission or other relevant departments and sanctioned by the stock exchange. Independent director candidates must make a statement and commitment regarding whether they meet the conditions, qualifications, independence requirements and other aspects for independent directors as stipulated by laws and regulations and the relevant regulations of the Shanghai Stock Exchange. Nominators of independent directors must carefully verify whether the independent director candidates meet the conditions and qualifications for the position, their ability to perform duties, and whether there are circumstances affecting their independence, etc., and make a statement and commitment regarding the verification results. The Nomination Committee shall review the qualifications of the nominees and form a clear review opinion.

To improve the Company's governance system, strengthen and standardize the management of the Company's directors' and supervisors' allowances, the following system for Directors' and Supervisors' allowances is formulated in accordance with the Company Law of the People's Republic of China, Securities Law of the People's Republic of China, Code of Corporate Governance for Listed Companies, Rules for Independent Directors of Listed Companies, and other laws and regulations:
Basic Remuneration: Directors and supervisors who receive compensation from Wanhua Chemical Group Co., Ltd. do not receive directors' and supervisors' allowances; other directors (excluding independent directors) and supervisors receive 200,000 yuan per person per year, and independent directors receive 260,000 yuan per person per year.
Position Allowance: The standard is 1,500 yuan per month (18,000 yuan per year) for each committee director, and 1,000 yuan per month (12,000 yuan per year) for each committee member. Directors and supervisors who serve on multiple special committees receive their committee position allowance according to the number of committees they serve on.

To further improve the Company's Compensation Management System, standardize the compensation management for senior management, the management methods for compensation assessment of senior management are stipulated as follows:
The indicators for assessing senior management mainly include: comprehensive target assessment, company performance, and individual performance assessment. Among them, the company performance is an important indicator reflecting the Company's annual business situation, strictly following the principle of "salary increases with performance increase, salary decreases with performance decrease", fully embodying the model of compensation linked to company performance; The comprehensive target assessment is the annual business performance target document signed by the Board of Directors (authorized by the chairman) with the Company (authorized by the management) at the beginning of each year, which includes assessment details such as completion results, completion time and weight proportions of financial indicators, key projects, safety and environmental protection, etc. At the end of each year, based on the actual completion situation of the Company, each item is evaluated and scored to calculate the comprehensive target assessment coefficient; The individual performance assessment is an important assessment indicator reflecting the achievement of business work goals by senior management for that year, evaluated by the Board of Directors (authorized by the chairman) at the end of each year.

After the Company was listed, standardization has always been the "lifeline" for the continuous healthy development of Wanhua Chemical. Since its establishment, the Company has implemented the "Five Separations" of personnel, assets, finance, institutions and business according to the requirements of the Code of Corporate Governance for Listed Companies issued by the China Securities Regulatory Commission, and conducted timely, accurate and complete information disclosure according to the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and other relevant laws and regulations. For consecutive years, the Company has received an "A" rating from the Shanghai Stock Exchange for information disclosure evaluation.

In terms of shareholder participation, the Company standardizes the convening, deliberation and voting procedures of the Shareholders' Meeting according to relevant laws and regulations and the Company's "Articles of Association" and "Rules of Procedure for Shareholders' Meetings".

As a responsible listed company, Wanhua Chemical has long focused on the protection of investors, especially small and medium investors, by adding clauses in the "Articles of Association" that are beneficial to the exercise of rights by small and medium investors, such as "when the Shareholders' Meeting deliberates on major matters affecting the interests of small and medium investors, the votes of small and medium investors should be counted separately. The results of separate counting should be disclosed promptly."

In terms of shareholder returns, Wanhua Chemical has always been committed to being a responsible listed company, for "creating wealth for shareholders and creating value for society". Firstly, the Company emphasizes investment returns, considering the alignment of funds with projects and the profit prospects of projects during financing, truly ensuring that financing brings better returns to shareholders. Secondly, on the basis of adhering to prudent financing and sustainable development, the Company is able to share development achievements with investors: each year, based on realized profits, a certain proportion is allocated to shareholders. As of December 31, 2024, cumulative cash dividends amounted to 47.9 billion yuan, which is 16.5 times the cumulative financing amount. With outstanding performance in various aspects such as company scale, profitability, debt repayment ability, asset management capability, growth capability, and innovation capability, in 2024, Wanhua Chemical was awarded the "2023 Golden Bull Award Most Valuable Investment" Award and the "Top 100 Value Companies on the Main Board of China" Award.

5.2 Business Ethics

Throughout our history, we have remained steadfast in our efforts to cultivate a working environment free from nepotism, bureaucracy, fraud and other detrimental factors. Our aim is to foster a culture that is fair, equitable, and focused on key performance indicators (KPIs), thereby promoting dedication, responsibility, and high competency among our team members, we firmly believe that this approach will cultivate a positive ecosystem conducive to business growth and safeguard our continued progress and development.

Anti-commercial Bribery and Anti-corruption

In 2024, the Company conducted 14 sessions of integrity training for all employees through the "Sunshine Wanhua 345 Action" and the integrity courses released by Wanhua Learning APP to enhance employees' awareness of integrity, laying a solid foundation for shaping a pure company culture and providing strong support for the Company's long-term stable development.

Training base	Number of training
Wanhua Yantai	5
Wanhua Ningbo	4
Wanhua Fujian	1
Wanhua Sichuan	1
Wanhua Guangdong	1
Wanhua Penglai	1
Wanhua Ningxia	1

"Sunshine Wanhua 345 Action"

Each year, all employees declare conflicts of interest in March; integrity talks are organized for managers and employees of key positions in April; and the "Integrity Cooperation Notice" is issued to major business partners in May. The "Sunshine Wanhua 345 Action" is an important component of the "Integrity Employment Supervision Management System", and it is also a regular measure in the Company's Fraud Prevention Mechanism, playing a crucial role in integrity employment management.

Declaration in March

100% of all employees declaring conflicts of interest; 100% of managers declaring basic information of direct interest relations; 100% implementation of risk prevention measures. Through this declaration, the Company comprehensively grasped the conflicts of interest, controlling interest conflict risk from the source, effectively preventing interest transfer, significantly reducing the likelihood of corruption and fraud.

Declaration of conflicts of interest

2078

Control measures formulated for conflicts of interest with risks

8

"Conversations in April"

Full coverage of middle and senior management; full coverage of key positions. This conversation allowed all employees to genuinely enhance their awareness of integrity and self-discipline.

Conversations completed by middle and senior management

1386

100% coverage

Conversations of employees of key positions

593

100% coverage

Notices in May

In 2024, the Company issued the "Integrity Cooperation Notice" to all sales business dealers, logistics carriers, engineering contractors, and inspection and maintenance service providers of the Group; selected material suppliers and consulting service providers based on the importance of cooperation for issuance of notices, effectively enhancing Wanhua's brand image, creating a fair, just, honest and trustworthy business environment of integrity cooperation, laying a good foundation for Wanhua's healthy and rapid development and long-term success.

Issuance of "Integrity Cooperation Notice"

3843

Valid replies

3835

In conjunction with the "Sunshine Wanhua 345 Action", Wanhua strengthened internal education to enhance the awareness of unwillingness to corrupt. During the event, 2 online courses and 8 on-site courses were completed. At the same time, various bases and business units independently conducted activities such as court lectures, integrity oaths, and signing ceremonies. These activities fully reflect the Company's integrity risk control principle of education first and prevention-oriented, educating employees to enhance personal awareness, cultivate a culture of integrity, and strengthen the ideological defense line, effectively supporting the standardization and solid implementation of the "Sunshine Wanhua 345 Action".

Anti-unfair competition

In 2024, Wanhua Chemical promotes compliance concepts and compliance management requirements through various forms such as organizing offline/online training, conducting on-site Q&A, launching compliance courses and compliance knowledge examinations on Wanhua Zhixue Platform, to ensure that employees can fully and deeply understand the importance of compliance and accurately identify and effectively respond to risks in actual work. Throughout the year, the Company had no legal lawsuits related to anti-competitive action, anti-trust, and anti-monopoly practices.

In terms of anti-monopoly: We are committed to and uphold the principles of fairness and justice in market competition, strictly complying with the laws and regulations related to anti-monopoly and anti-unfair competition of the countries or regions where our business operates, and are dedicated to maintaining a fair competition market environment. To this end, Wanhua Chemical has formulated the "Anti-monopoly Compliance Management System and Business Guide" to guide employees in conducting business legally and compliantly. At the same time, for specific business scenarios, Wanhua Chemical has also established corresponding processes to ensure that related business can be declared in accordance with the requirements of laws and regulations.

In terms of anti-fraud: To effectively control the Company's fraud risk, encourage employees and stakeholders to supervise fraudulent behaviors, illegal behaviors, disciplinary offence and other actions detrimental to the Company's interests in its operations, and promote the construction of the Company's anti-fraud mechanism, the "Wanhua Chemical Anti-fraud Management System" has been specially formulated.

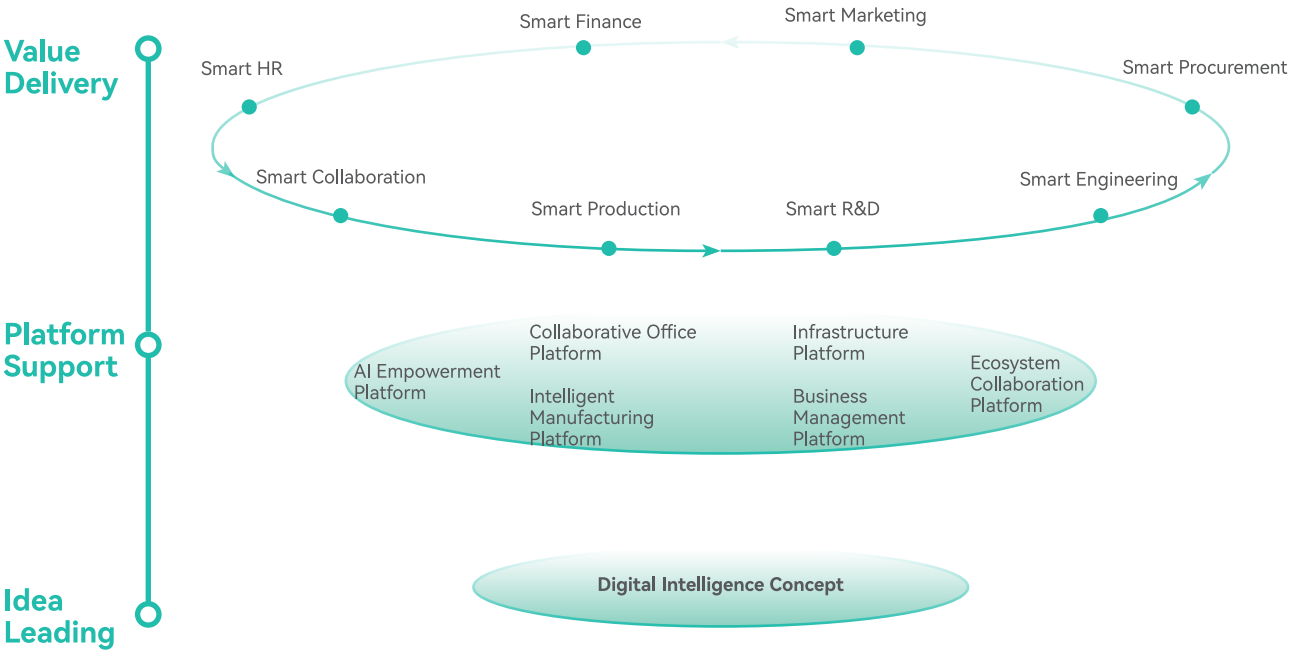
At the same time, the Company protects the personal safety and interests of whistleblowers from harm. For whistleblowers who provide clear clues or evidence not previously known to the Company, the Company will reward them based on their contribution and the amount of economic loss recovered, with a maximum reward of 200,000 yuan for a single report. To combat fraudulent activities, the Company has established clear reporting channels. Report phone number: 0535-8203820, Report email: whjc@whchem.com.

In 2024, the Company promptly investigated and handled the collected reports, receiving and completing investigations on 18 reports, with 100% implementation of handling measures.

In terms of intellectual property and trade secrets protection: We highly value the protection of our own intellectual property and trade secrets, and we equally respect the intellectual property and trade secrets of others. We strictly prohibit employees from disclosing the Company's trade secrets under any circumstances, and we also prohibit employees from improperly obtaining, disclosing, using or handling others' trade secrets, striving to create a fair and healthy market competition environment.

5.3 Digital Intelligence

For many years, Wanhua Chemical has been committed to building a fully connected, fully data-driven smart company, adhering to a scientific digital intelligence concept. Relying on six digital intelligence platforms: intelligent manufacturing, business management, ecosystem collaboration, collaborative office, AI empowerment and infrastructure, we closely follow strategic directions, focus on value creation, and empower business development.



In 2024, the Company's management theme is the "Digital Intelligence" year. We seize the opportunity, focusing on smart R&D, intelligent manufacturing, and excellent operation as the three main lines to vigorously promote "smart transformation and digital transition", fully stimulating Wanhua's new potential through digital intelligence.

Wanhua Chemical actively explores and advances the AI for science research paradigm, using artificial intelligence, scientific computing and laboratory automation as entry points, with the first batch of pilot projects successfully implemented. Through the deep integration of AI and automated experiments, significant improvements in experimental efficiency have been achieved in fields such as molecular discovery and reaction optimization.

Based on inherent safety, leapfrog development has been achieved in the three levels of mechanization replacing humans, automation reducing humans, and unmanned intelligent. In 2024, China's first petrochemical industry temporal AI model was implemented at Wanhua. At the same time, the Company has deployed robots and automation equipment in multiple processes such as inspection, quality inspection, warehousing, and logistics. The Company successfully established 5 group-level Remote Operation Control (ROC) centers within just one year, achieving remote control and autonomous operation for multiple sets of device. With AI support, Wanhua has achieved intelligent product quality prediction for multiple products, precise equipment prevention for various types of equipment, and digital quality inspectors and digital inspectors have officially "started work" at Wanhua!

Facing customers, since the launch of Wanhua's e-commerce platform at the beginning of 2024, the total sales have exceeded 100 billion; the chemical industry's first material model was officially released, integrating the Company's product knowledge base, providing customers with product consultation, brand recommendation, technical support, and other Q&A services, greatly enhancing the customer experience.

With globalization & digital intelligence, the Company's operations are more efficient and intelligent. In 2024, the Company achieved full coverage of logistics and financial sharing for 11 overseas subsidiaries, significantly enhancing the digital intelligence level. At the same time, a series of digital intelligence measures such as global centralized fund management, one-click issuance of financial reports, and automated processing of employee onboarding, transfer, departure and dispatch in all scenarios have been implemented, further enhancing the Group's operational efficiency.

"AI + chemistry" is turning more "impossibilities" into "possibilities". In the future, Wanhua Chemical will continue to deepen the application of AI and digital intelligence technology, creating a digital intelligence ecosystem that integrates the "four chains" of industry chain, supply chain, information chain and value chain. This will achieve higher efficiency, more controllable quality and lower costs, gradually forming a unique digital intelligence competitive advantage.

Appendix

Key Performance

Environmental Performance

	Indicator	2021 (Benchmark year)	2023	2024	2030
GHG emissions	Total Carbon Emissions (million tCO_2e)	23.89	26.46	28.03	Carbon Emission Peak
	- Direct Greenhouse Gas Emissions (Scope 1) (million tCO_2e)	15.13	16.94	21.61	/
	- Indirect Greenhouse Gas Emissions (Scope 2) (million tCO_2e)	8.76	9.52	6.42	/
	Carbon Emission Intensity (Scope 1+2) (tCO_2e/t)	0.99	0.72	0.75	↓ 20%
	Total energy consumption (TWh)	27.8	36.4	40.73	/
	Energy consumption intensity (kg ce/t)	144	122	133	↓ 20%
	Proportion of low-carbon power (%)	9.1	13.2	13.97	50%
Water resources	Fresh water consumption per unit of production (m^3/t)	1.97	1.03	0.82	↓ 25%
	Cooling water recycling rate (%)	98.2	98.8	98.9	≥ 99%
	COD emission intensity (tons/thousand tons)	0.017	0.018	0.018	↓ 35%
	Fresh water withdrawal-consumption ratio (%)	65	46	45.2	≤ 40
Three wastes	Exhaust emission intensity (tons/million tons)	59.5	55.1	55.1	↓ 10%
	Solid waste generation intensity (tons/100 tons)	3.98	3.38	3.92	↓ 10%
	Solid waste landfill ratio (%)	0.3	0.5	0.3	≤ 0.5

Notes:

1. The data boundary is adjusted so that the electric and heat mutual supply within the companies of Group is not included in the total emissions. and the data for 2023 is revised;
2. Direct Greenhouse Gas Emissions (Scope 1) includes process emissions and combustion emissions.
3. In 2024, the electricity emission factor is the national average electricity CO_2 emission factor (excluding non-fossil energy electricity from market-based transactions) at 0.5856 $kgCO_2/kWh$, and the steam emission factor is 0.11 tCO_2/GJ.
4. Product output includes the Company's main products, intermediate products and by-products.
5. The statistical scope of exhaust emission intensity includes SO_2, NOx.
6. "-" indicates that relevant information was not collected, "/" indicates that relevant targets were not set

Social Performance

	Indicator	2021	2023	2024	2030
Labor relation	Number of employees (person)	19692	29053	33303	/
	Proportion of female employees (%)	14	13	14	/
	Proportion of female managers	-	-	8.28	/
	Proportion of employees under 30 years old (%)	-	62	56.2	/
	Proportion of employees of 30-50 years old (%)	-	36	38.2	/
	Proportion of employees of 50 years old and above (%)	-	2	5.6	/
	Proportion of employees with master's degree or above (%)	13.6	14.5	16.8	/
	Proportion of employees with bachelor's degree (%)	22.5	23.4	22.7	/
	Employee turnover rate (%)	4.1	2.4	2.24	≤ 5
	Collective agreement coverage rate (%)	100	100	100	100
	Percentage of employees receiving regular performance and career development reviews	100	100	100	100
	Average hours of training per employee (h)	107	107	107.6	100
Occupational Health and Safety	Recordable injury rate of employee (time/per 200,000 man-hours)	0.056	0.038	0.066	≤ 0.06
	Employee absence rate due to work-related injury (time/per 200,000 man-hours)	0.024	0.032	0.020	≤ 0.03
	Number of work-related injury deaths of contractor (time)	0	0	0	0
	Recordable injury rate of contractor (time/per 200,000 man-hours)	0.053	0.013	0.017	≤ 0.04
Supply chain	New supplier social responsibility assessment rate (%)	100	100	100	100
	TfS supplier purchase amount proportion (%)	67	72	72	/
Social responsibility	External donations, public welfare project investment (10,000 yuan)	1024	697	924	/

Governance Performance

	Indicator	2022	2023	2024	2030
Corporate governance	Proportion of independent directors (%)	36	36	36	/
	Proportion of female directors (%)	9	9	0	/
Business ethics	Business ethics and compliance training coverage rate (%)	100	100	100	100
	Anti-corruption training coverage rate (%)	100	100	100	100
	Percentage of all locations that have undergone internal evaluations or audits for specific business ethics issues	-	-	100	100

Index of Guidelines No.14 of Shanghai Stock Exchange for Self-Regulation of Listed Companies – Sustainability Report (Trial)

Disclosure Requirements	Corresponding Sections of This Report
Climate change response	Empowering Green Chemistry - Climate Neutral
Pollutant emissions	Empowering Green Chemistry - Environmental Protection
Waste treatment	Empowering Green Chemistry - Environmental Protection
Ecosystem and biodiversity protection	Empowering Green Chemistry - Environmental Protection
Environmental compliance management	Empowering Green Chemistry - Environmental Protection
Energy utilization	Empowering Green Chemistry - Climate Neutral
Utilization of water resources	Empowering Green Chemistry - Environmental Protection
Circular economy	Empowering Green Chemistry - Industry Innovation
Rural revitalization	Creating Social Value - Social Responsibility
Social contribution	Creating Social Value - Social Responsibility
Innovation-driven	Empowering Green Chemistry - Industry Innovation (disclose relevant data in 2024 Financial Report)
Technology Ethics	After a comprehensive assessment of the Company's industry characteristics and specific business conditions, it does not involve scientific research or technology development activities in sensitive fields such as life sciences and artificial intelligence. Therefore, those have not been identified as material topics for this year.
Supply Chain Security	Creating Social Value - Sustainable Supply Chain
Equal treatment for small and medium-sized enterprises	Creating Social Value - Sustainable Supply Chain
Security and Quality of Product and Services	Creating Social Value - Product and Service Quality
Data security and customer privacy protection	Creating Social Value - Data Security and Customer Privacy Protection
Employees	Creating Social Value - Occupational Health and Safety Creating Social Value - Career Development and Training Creating Social Value - Employment and Benefits
Due diligence	ESG Strategy - Communication with Stakeholders & Due Diligence
Communication with stakeholders	ESG Strategy - Communication with Stakeholders & Due Diligence
Anti-commercial bribery and anti-corruption	Abide by the Governance Code - Business Ethics
Anti-unfair competition	Abide by the Governance Code - Business Ethics
Governance Structure (Self-Identified)	Abide by the Governance Code - Corporate Governance
Chemical Safety (Self-Identified)	Creating Social Value - Chemical Safety
Sustainable Procurement (Self-Identified)	Creating Social Value - Sustainable Supply Chain
Digital Intelligence (Self-Identified)	Abide by the Governance Code - Digital Intelligence

GRI ESG Index

Instructions for Use	Wanhua Chemical prepared the Report with reference to the GRI Standards for the period from January 1, 2024, to December 31, 2024
GRI 1 used	GRI 1: Foundation 2021

GRI Standards	Disclosure item title	Chapter Index
GRI 2: General Disclosures 2021		
The organization and its reporting practices		
2-1	Organization details	About Wanhua
2-2	Entities included in the organization's sustainability reporting	Report Preparation Instructions
2-3	Reporting period, frequency and contact person	Report Preparation Instructions
2-4	Restatements of information	Key Performance
2-5	External assurance	Assurance Statement
Activities and workers		
2-6	Activities, value chain and other business relationships	ESG Strategy
2-7	Employees	ESG Strategy - ESG Governance
Governance		
2-9	Governance structure and composition	Abide by the Governance Code- Corporate Governance
2-10	Nomination and selection of the highest governance body	Abide by the Governance Code - Corporate Governance
2-12	Role of the highest governance body in overseeing the management of impacts	ESG Strategy - ESG Governance
2-13	Delegation of responsibility for managing impacts	Abide by the Governance Code - Corporate Governance
2-14	Role of the highest governance body in sustainability reporting	ESG Strategy - ESG Governance
2-16	Communication of critical concerns	ESG Strategy - Communication with Stakeholders & Due Diligence
2-18	Evaluation of the performance of the highest governance body	Abide by the Governance Code - Corporate Governance
2-19	Remuneration policies	Abide by the Governance Code - Corporate Governance
2-20	Process to determine remuneration	Abide by the Governance Code - Corporate Governance

Strategy, Policies and Practices		
2-22	Statement on sustainable development strategy	ESG Strategy
2-23	Policy commitments	ESG Strategy
2-24	Embedding policy commitments	ESG Strategy
2-26	Mechanisms for seeking advice and raising concerns	ESG Strategy - Communication with Stakeholders & Due Diligence
2-27	Compliance with laws and regulations	Empowering Green Chemistry - Environmental Protection
2-28	Membership associations	Creating Social Value - Sustainable Procurement
Stakeholder Engagement		
2-29	Approach to stakeholder engagement	ESG Strategy - Stakeholder Communication & Due Diligence
GRI 3: Material Topics 2021		
3-1	Process to determine material topics	ESG Strategy - ESG Governance
3-2	List of material topics	ESG Strategy - Material Topics
3-3	Management of material topics	ESG Strategy - Disclosure of financial material topics
Economy		
GRI 201: Economic Performance		
201-2	Financial implications and other risks and opportunities due to climate change	ESG Strategy - Disclosure of financial material topics
201-3	Defined benefit plan obligations and other retirement plans	Creating Social Value - Employment and Compensation
GRI 203: Indirect Economic Impacts		
203-1	Infrastructure investments and services supported	Creating Social Value - Social Contribution
GRI 205: Anti-corruption		
205-1	Operations assessed for risks related to corruption	Abide by the Governance Code - Business Ethics
205-2	Communication and training about anti-corruption policies and procedures	Abide by the Governance Code - Business Ethics
205-3	Confirmed incidents of corruption and actions taken	Abide by the Governance Code - Business Ethics
GRI 206: Anti-competitive Behavior		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Abide by the Governance Code - Business Ethics

Environment		
GRI 301: Materials		
301-1	Materials used by weight or volume	Creating Social Value - Chemical Safety
301-2	Recycled input materials used	Creating Social Value - Industry Innovation
301-3	Reclaimed products and their packaging materials	Creating Social Value - Industry Innovation
GRI 302: Energy		
302-1	Energy consumption within the organization	Empowering Green Chemistry - Climate Neutral
302-3	Energy intensity	Empowering Green Chemistry - Climate Neutral
302-4	Reduction of energy consumption	Empowering Green Chemistry - Climate Neutral
302-5	Reductions in energy requirements of products and services	Empowering Green Chemistry - Climate Neutral
GRI 303: Water		
303-1	Interactions with water as a shared resource	Empowering Green Chemistry - Environmental Protection
303-2	Management of water discharge-related impacts	Empowering Green Chemistry - Environmental Protection
303-3	Water withdrawal	Empowering Green Chemistry - Environmental Protection
303-4	Water discharge	Empowering Green Chemistry - Environmental Protection
GRI 305: Emissions		
305-1	Direct (Scope 1) GHG emissions	Empowering Green Chemistry - Climate Neutral
305-2	Energy indirect (Scope 2) GHG emissions	Empowering Green Chemistry - Climate Neutral
305-4	GHG emissions intensity	Empowering Green Chemistry - Climate Neutral
305-5	Reduction of GHG emissions	Empowering Green Chemistry - Climate Neutral
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Empowering Green Chemistry - Climate Neutral
GRI 306: Waste		
306-2	Management of significant waste-related impacts	Empowering Green Chemistry - Environmental Protection
306-3	Waste generated	Empowering Green Chemistry - Environmental Protection

GRI 308: Supplier Environmental Assessment		
308-1	New suppliers that were screened using environmental criteria	Creating Social Value - Sustainable Procurement
Society		
GRI 401: Employment		
401-1	New employee hires and employee turnover	Creating Social Value - Employment and Benefits
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Creating Social Value - Employment and Benefits
401-3	Parental leave	Creating Social Value - Employment and Benefits
GRI 403: Occupational Health and Safety		
403-1	Occupational health and safety management system	Creating Social Value - Occupational Health and Safety
403-2	Hazard identification, risk assessment, and incident investigation	Creating Social Value - Occupational Health and Safety
403-3	Occupational health services	Creating Social Value - Occupational Health and Safety
403-4	Worker participation, consultation, and communication on occupational health and safety	Creating Social Value - Occupational Health and Safety
403-5	Worker training on occupational health and safety	Creating Social Value - Occupational Health and Safety
403-6	Promotion of worker health	Creating Social Value - Occupational Health and Safety
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Creating Social Value - Occupational Health and Safety
403-8	Workers covered by an occupational health and safety management system	Creating Social Value - Occupational Health and Safety
403-9	Work-related injuries	Creating Social Value - Occupational Health and Safety
403-10	Work-related ill health	Creating Social Value - Occupational Health and Safety
GRI 404: Training and Education		
404-1	Average hours of training per year per employee	Creating Social Value - Career Development and Training
404-2	Programs for upgrading employee skills and transition assistance programs	Creating Social Value - Career Development and Training
404-3	Percentage of employees receiving regular performance and career development reviews	Creating Social Value - Career Development and Training
GRI 405: Diversity and Equal Opportunity		
405-1	Diversity of governance bodies and employees	Creating Social Value - Career Development and Training
GRI 406: Non-discrimination		
406-1	Incidents of discrimination and corrective actions taken	Creating Social Value - Employment and Benefits

GRI 407: Freedom of Association and Collective Bargaining		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Creating Social Value - Employment and Benefits
GRI 408: Child Labor		
408-1	Operations and suppliers at significant risk for incidents of child labor	Creating Social Value - Employment and Benefits
GRI 409: Forced or Compulsory Labor		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Creating Social Value - Employment and Benefits
GRI 414: Supplier Social Assessment		
414-1	New suppliers that were screened using social criteria	Creating Social Value - Sustainable Supply Chain
GRI 416: Customer Health and Safety		
416-1	Assessment of the health and safety impacts of product and service categories	Creating Social Value - Product and Service Quality
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Creating Social Value - Product and Service Quality
GRI 418: Customer Privacy		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Creating Social Value - Data Security and Customer Privacy Protection

ASSURANCE STATEMENT

SGS-CSTC'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE WANHUA CHEMICAL GROUP CO., LTD.'S ESG REPORT FOR 2024

NATURE OF THE ASSURANCE/VERIFICATION

SGS-CSTC STANDARDS TECHNICAL SERVICES CO., LTD. (hereinafter referred to as SGS) was commissioned by Wanhua Chemical Group Co., Ltd. (hereinafter referred to as Wanhua Chemical) to conduct an independent assurance of the Chinese version of ESG Report for 2024 (hereinafter referred to as the Report).

INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all Wanhua Chemical's Stakeholders.

RESPONSIBILITIES

The information in the Report and its presentation are the responsibility of the board of directors and the management of Wanhua Chemical.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of assurance with the intention to inform all Wanhua Chemical's stakeholders.

SGS hereby states that it shall not be held responsible or liable for any direct, indirect, incidental, or consequential damages or losses arising from or in connection with the use of information provided in this report.

ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE

The SGS ESG & Sustainability Report Assurance (SRA) protocols used to conduct assurance are based upon internationally recognised assurance standards including the AA1000 series of standards and ISAE3000.

The assurance of this report has been conducted according to the following Assurance Standards:

Assurance Standard Options	Level of Assurance
AA1000AS v3 Type 2	Moderate

SCOPE OF ASSURANCE AND REPORTING CRITERIA

The assurance engagement was conducted to evaluate the accuracy and reliability of the sustainability performance information included in the Report. Additionally, it assessed the extent to which the Report's content refers to the requirements of GRI Standards 2021.

ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, interviews with relevant employees of Wanhua Chemical which is located at No.3 Sanya Rd., YEDA Yantai, Shandong Province, P.R. China,including documentation and record review and validation where relevant.

LIMITATIONS AND MITIGATION

Data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

The carbon emission data in the report was independently calculated by Wanhua Chemical. In the context of the present assurance engagement, our procedures were limited to sample-based validation, and did not include a comprehensive review of the calculation process of carbon emission data.

This assurance engagement was restricted to the group level of Wanhua Chemical and did not include traceability of original data from all subordinate institutions.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and certification, operating in multiple countries and providing services. SGS affirm our independence from Wanhua Chemical, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment.

FINDINGS AND CONCLUSIONS

ASSURANCE/VERIFICATION OPINION

On the basis of the methodology described and the assurance engagement performed, the specified performance information included in the Wanhua Chemical's ESG Report for 2024 is accurate, reliable, and has been fairly stated.

CONCLUSIONS, FINDINGS AND RECOMMENDATIONS BASED ON GRI STANDARDS 2021

The assurance team concludes that the Wanhua Chemical's ESG Report for 2024 has referred to the requirements of GRI Standards 2021.

FINDINGS AND RECOMMENDATIONS

All observations pertaining to commendable practices, sustainable development activities, and managerial recommendations identified throughout the assurance process have been thoroughly documented in the Internal Management Report on Sustainability Reporting Assurance. This report has been officially presented to the relevant management divisions of Wanhua Chemical to serve as a reference for their ongoing efforts towards continuous improvement.

Signed:

For and on behalf of SGS-CSTC
David Xin
Sr. Director – Business Assurance
16/F Century Yuhui Mansion, No. 73, Fucheng Road, Beijing, P.R. China

Mar. 11th, 2025
WWW.SGS.COM

Feedback

Dear readers:
Thank you for reading the Wanhua Chemical 2024 ESG Report. To improve the sustainable development work level and report quality of Wanhua Chemical, we make much account of and look forward to hearing your feedback on Wanhua's sustainable development work and this ESG report, and we will keep your personal information confidential.

Name: _____ Email: _____ Phone: _____

Which stakeholder do you belong to:
☐ Employee ☐ Customer ☐ Shareholder ☐ Government ☐ Public ☐ Supplier ☐ Other_____

Your overall evaluation of the report is:
☐ Very good ☐ Good ☐ Fair ☐ Poor

What is the degree of disclosure of the information that your concerned in the report:
☐ Very thorough ☐ Relatively thorough ☐ Partially disclosed ☐ Not mentioned

Do you think the content arrangement and layout design of this report are easy to read:
☐ Very easy to read ☐ Easy to read ☐ Average ☐ Not easy to read

What information not included in this report are you intended to know:

_____

_____

What are your comments and suggestions on Wanhua Chemical's sustainable development works:

_____

_____

What other information will be helpful to be included in this report?

_____

_____

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