



With Customers

As a materials manufacturer for chemical and food products, the ADEKA Group provides safe, high-quality products that live up to customer expectations. We strive to develop systems and products as we work together with customers to identify and tackle the issues they face.

Product Safety Initiatives

Quality and Safety Policy for Fiscal 2017

1. Ensuring legal and regulatory compliance (chemical substance management and food labeling)
2. Implementing measures to prevent reoccurrence of claims/complaints and horizontal deployment of measures within and between plants. Implementation of appropriate measures, particularly for contamination of foreign matter, by identifying the origin of occurrence and contamination route
3. Providing accurate product information based on strengthened management of information about raw materials and products

Quality Management System

ADEKA's Quality and Safety Policy guides its sales, manufacturing, R&D and staff departments in their quality and safety initiatives. The company conducts quality and PL inspections*1 to ensure the effective implementation

of initiatives. The results are shared at the Quality Management and Product Liability Council as part of a PDCA cycle.

Overview of Quality Management System



Reassessment of Quality Inspection Practices

In response to Keidanren's call on companies in Japan to examine and take the necessary actions for any incident of inappropriate quality control, the ADEKA Group conducted a quality control survey of all business departments and domestic and overseas Group companies. Analyzing the survey results, we found that there were no incidents of non-certified workers performing the work, including testing, which is limited to certified workers, nor of intentional tampering with test and other data.

Targets and Actual Results for Fiscal 2017 and Targets for Fiscal 2018

Item	Targets for FY2017	Results for FY2017	Targets for FY2018
Full compliance with the Product Liability Act	• Develop country-specific SDS using the automatic SDS ² creation system that complies with overseas regulations	• Developed part of country-specific SDS using the automatic SDS creation system	• Continue developing country-specific SDS using the automatic SDS creation system • Standardize a series of work from the acquisition of test data to the input of test values to the management system and thoroughly manage test values
	• Operate a system capable of reinforcing the management of product information	• Developed a system capable of reinforcing the management of product information	• Operate a system capable of reinforcing the management of product information
Management of chemicals	• Maintain appropriate compliance with domestic and international regulations • Survey and address the latest trends in Korea REACH ³ , the USA (TSCA), and Thailand (Chemical Substance Control Law) • Achieve compliance in countries introducing GHS ⁴ , including Canada (June 2017)	• Achieved compliance with the Japan CSCL priority assessment chemical substances (addition) • Submitted the performance report based on the revised TSCA ⁵ in the USA (February 2018) • Compliance with Canada's GHS is planned to be achieved in fiscal 2018 due to the delayed GHS implementation (June 2018)	• Maintain appropriate compliance with domestic and international regulations • Survey and address the latest trends in Japan (CSCL), South Korea REACH, the USA (revised TSCA), Thailand and Vietnam (new CSCL) • Achieve compliance in countries introducing GHS (Canada: June 2018, Mexico: October 2018, etc.)
	• Continue providing reliable product information to customers including product standard documentation	• Continued to provide customers with reliable product information based on product standard documentation and quality management	• Continue providing customers with reliable product information based on product standard documentation and quality management
Safety and assurance for food products	• Continue gathering all regulatory information related to food labeling standards and maintain reliable responsiveness	• Established in-house rules and operational plans	• Continue gathering all regulatory information related to food labeling standards and maintain reliable responsiveness

*1 An initiative unique to ADEKA to check for the thorough deployment of quality and safety measures.
 *2 Safety Data Sheets containing information such as the name of the chemical substance, its properties, hazards and necessary handling precautions.
 *3 The Act on Registration and Evaluation of Chemicals of South Korea.
 *4 Globally Harmonized System of Classification and Labeling of Chemicals.
 *5 Toxic Substances Control Act.

Promoting Quality Improvement Efforts

The ADEKA Group promotes voluntary activities to improve quality and safety by ensuring four areas of safety (occupational, quality, equipment and environmental safety). Our 22 production bases in and outside of Japan have obtained certification under ISO 9001 for quality management and FSSC 22000 for food safety. They are also working to obtain additional certifications for products and countries/regions as necessary to ensure customer

safety and satisfaction. In fiscal 2017, the high quality and safety of our products were further acknowledged through, for example, the receiving the first UL Verified Mark^{*6} of functional material for our intumescent-type flame retardant and acquisition of kosher^{*7} certification for some of the shortening products of our subsidiary in Malaysia.

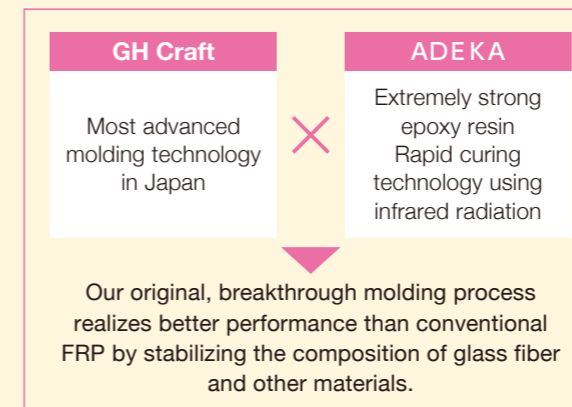
*6 Certification provided by UL LLC. for product performance and safety.
 *7 Certification for the safety of foods in accordance with the doctrine of Judaism granted after strict inspections of the raw materials and manufacturing processes.

Joint Development with Companies in Different Industries

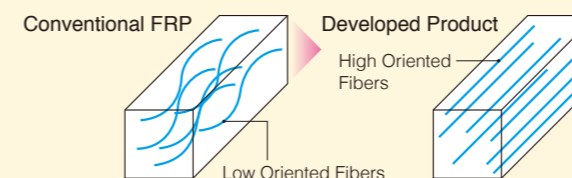
ADEKA and GH Craft Ltd., a Teijin Limited unit, have jointly developed the world's first fiber-to-composite molding process to laminate fiber-reinforced plastics (FRP) in open molds. We listened to a lecture on advanced technologies from Mr. Gaku Kimura, the late founder and president of GH Craft Ltd., combined our rapid curing technology using infrared radiation, and realized a molding process that is better than the conventional process in speed, manufacturing cost and strength. We expect to use the new process for producing windmill blades, transport equipment and infrastructure products. The two companies will create a market for composite materials made through the new process.

What is FRP?

The combination of materials such as glass fiber and carbon fiber with resin makes FRP a light, strong material with the elasticity of resin and hardness and strength of fiber. It is expected to become a next-generation structural material in place of metal.



Technical Concept



VOICE

FRP Joins Different Industries to Form Effective Partnerships



Masayoshi Gouke
President, GH Craft Ltd.

When I was sounded out about the joint development project, my attention was caught by the concept of rapid curing resin described in the provided documents. As FRP's strength highly depends on fiber orientation, it was frequently molded manually. And the resulting FRP was delicate and something like a craft product, with a quality that largely relied on the skills of the molding workers. So, I believed that the rapid curing resin and automatic laminating technology would become a solution for achieving the intended strength of FRP with little variation in quality.

GH Craft has long engaged in the production of structures for various sectors using CFRP (carbon fiber-reinforced plastics). In the process, I learned about many new technologies as a result of working with people in different industries and trying production methods for various materials. Completely different materials supplement each other, reinforce their strengths and lead to the development of even greater strengths toward creating composite materials. I find it interesting to see more excellent products created through the interaction between cultures and industries.

We are a team that came together to develop a new FRP technology. Although we face a lot of difficult problems, I hope we remain good partners by continuing to develop interesting technologies, sometimes arguing and at other times laughing, or suffering and being delighted together.

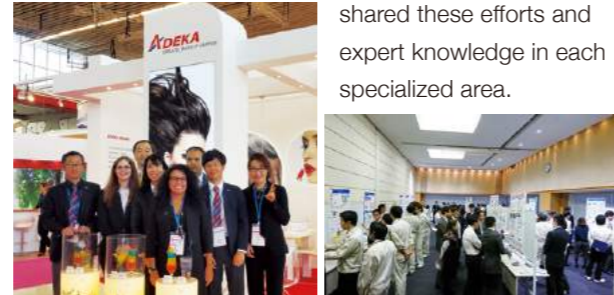


Communication with Customers

The ADEKA Group plans to develop products that are beneficial to society through active communication with customers. Our full-time sales and other technical service staff are stationed at each site, and the emerging needs and issues collected through communication with customers are shared and reviewed across the Group, leading to the development of new products. As a materials manufacturer, we strive to provide more meaningful and valuable services to our customers, for example, by comprehensively introducing compounding and formulations that include products of other companies.

In addition, efforts are underway to create value

beyond the research laboratories. In fiscal 2017, we held discussion sessions on five themes: synthesis technology, emulsification/dispersion/powderization technology, high-purification/analysis technology, polymer technology and compounding/processing technology. And we conducted poster presentations that reported on our progress in research and development. Moreover, we



Cosmetics trade show in the Netherlands In-house technology poster session

shared these efforts and expert knowledge in each specialized area.

Kaizen Assuring Four Areas of Safety



To ensure the sustainable development of the ADEKA Group, personnel in Japan and abroad are well aware of their mission to continue to guarantee security for customers in four basic areas of safety: occupational, quality, equipment and environmental. An increasing number of overseas Group companies participate in our semiannual workshops on *kaizen* initiatives, with a record six of them joining in fiscal 2017.

Four Areas of Safety

Occupational Safety

We eliminate potential risks through risk prediction activities for the complete prevention of occupational accidents. Young and relocated employees are taught by experienced personnel who pass on their knowledge of technology and safety principles so that we can consistently maintain *kaizen* awareness. Continuous *kaizen* in the workplace environment is indispensable for employees to work in a healthy and safe manner.

Quality Safety

We identify the root cause of potential quality problems, implement *kaizen* and entirely prevent our own actions from causing problems. In addition, we maintain the sound management of the entire supply chain and exercise extra vigilance over chemical material management and food safety.

Equipment Safety

We prevent major accidents and ensure business continuity by assessing disaster risks and periodically taking steps to deal with aged equipment. We understand and brush up on our emergency response procedures and increase our security capabilities so that everyone can make an appropriate decision at any place and time.

Environmental Safety

We review and minimize the impact of the entire supply chain on the global environment and biodiversity. In addition, we reduce emissions and the generation of all materials that impact the environment and human health, such as greenhouse gasses and volatile chemicals.

VOICE

Automatic Forklifts Lead to Occupational Safety

Ludovic Fleury
ADEKA POLYMER ADDITIVES
EUROPE SAS



Forklifts, while indispensable for factories, are associated with significant hazards. Our company has consistently strived to strengthen security through a number of preventive measures, such as separating lanes for pedestrians and forklifts, increasing forklift visibility and providing video-based safety training. As a further *kaizen* measure, we have introduced a revolutionary automatic forklift system, which decelerates a forklift when it detects a danger zone or person, further eliminating potential risk. This *kaizen* was the first of its kind at a production plant in southern France and has been taken up as a safety model by the labor security authorities.

With Shareholders and Investors



Placing high priority on communication with shareholders and investors, who expect continued growth and profitability, the ADEKA Group strives to disclose corporate information in a timely and appropriate manner and maximize corporate value through business activities.

Dialogue with Shareholders and Investors

• Proper Disclosure of Information

ADEKA strives to disclose accurate corporate information in a fair and timely manner to all stakeholders under its disclosure policy. Moreover, the Group actively discloses important information pertaining to company management, including business plans, to enhance understanding of ADEKA. The company observes a silent period preceding the announcement of its financial results to refrain from commenting on specific topics and from disclosing any unconfirmed information prior to the announcement. However, it will disclose information should it determine that the content of its financial results could significantly impact shareholders and investors.

Disclosure Policy
<https://www.adeka.co.jp/en/ir/disclosure/>

• General Shareholders Meeting

We put great effort into maintaining an environment in which all our shareholders can properly exercise their rights. This includes early disclosure on the company's website and avoidance of holding our shareholder meeting on the same day as many other Japanese companies hold theirs, which facilitates productive dialogue with shareholders. To make easier the review of the agenda by overseas shareholders, we posted an English notice of invitation to the shareholders meeting to be held in June 2018.



The 156th Ordinary General Shareholders Meeting

• IR Activities

We actively conduct IR activities such as briefings and issuing materials on our financial results for institutional investors and analysts. In fiscal 2017, we held 134 IR meetings in addition to financial results briefing sessions, which are held semiannually.

• Listed in the SRI Index

ADEKA is included in the SRI (Socially Responsible Investment) index, which is used for making investment decisions based on CSR initiatives, and similar considerations.

- MSCI Japan Empowering Women Index (WIN)
- SNAM Sustainability Index

MSCI 2018 Constituent
MSCI Japan Empowering
Women Index (WIN)

Member of SNAM
Sustainability Index
2018

• Returning Profits to Shareholders

ADEKA redistributes its profits to shareholders based on an overall consideration of the management environment, business performance and financial condition. With the understanding of its shareholders, ADEKA applies its internal reserves by placing priority on strengthening its management base and investing in growth businesses from a mid- to long-term perspective.

▶ Annual Cash dividends

