



# Product Safety Initiatives

The ADEKA Group places top priority on customer satisfaction and security as it strives to provide safe, high-quality products and services to bring about a healthy and affluent society.

## Message from General Manager

The ADEKA Group provides safe, high-quality products around the world by adhering to its Quality and Safety Policy. In our chemicals business in fiscal 2016, we achieved compliance with the revised Industrial Safety and Health Act in Japan as well as newly enacted international laws and regulations, such as the GHS in Thailand and Australia. We also began partial operation of the new SDS creation system in and outside of Japan. In our food business, we sought to bolster overall management of product information by deploying a system for gathering information on raw materials in fiscal 2015, and we considered introducing a new product information system in fiscal 2016.

## Koji Shishido

Operating Officer and General Manager, Environmental Protection Division General Manager, Environmental Safety & Quality Assurance Department



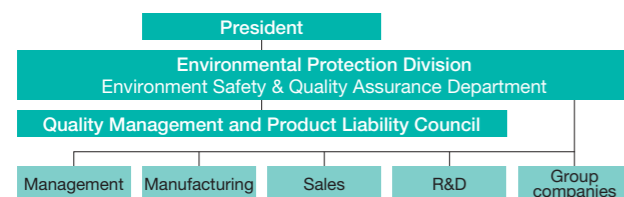
## Quality and Safety Policy for Fiscal 2016

- Promoting activities to eliminate complaints and in-process defects through thorough risk management and prevention of recurrence.
- Reinforcing management of raw materials information and chemical substances.
- Raising food security from the standpoint of food defense, preventing leakage of chemical substances, and applying meticulous care in storage and control.

## Quality Management System

ADEKA is guided by its Quality and Safety Policy as its sales, manufacturing, R&D, and staff departments each pursue quality and safety initiatives. The company conducts quality and PL inspections\*1 to ensure that these initiatives are being effectively implemented. The results are shared at the Quality Management and Product Liability Council as part of the PDCA cycle.

### ► Overview of Quality Management System



## Supply Chain Management

The ADEKA Group strives to reduce risk across the entire supply chain by rigorously implementing proper management at each stage, from procurement of raw materials to product use and disposal.

### • Control of Chemical Substances

Global efforts are underway to put in place sustainable production and use of chemical substances toward minimizing the adverse effects of chemicals on human health and the environment by 2020, which is the goal of the Strategic Approach to International Chemical Management (SAICM)\*2. As a materials manufacturer that handles chemical substances, the ADEKA Group promptly responds to stringent regulations introduced in the EU

### ► Targets and Actual Results for Fiscal 2016 and Targets for Fiscal 2017

Item	Targets for FY2016	Actual results for FY2016	Targets for FY2017
Full compliance with PL	<ul style="list-style-type: none"> <li>Issuing and operating of SDS*3 using an automatic SDS creation system that complies with overseas regulations</li> <li>Introduction of a new system that is compliant with enforcements in products information management</li> </ul>	<ul style="list-style-type: none"> <li>Began partial operation of an automatic SDS creation system to issue SDS for different countries</li> <li>Achieved compliance in countries that implemented GHS in FY2016, such as Indonesia, Australia, and Thailand</li> <li>Bolstered information management through the introduction of a new system for gathering information on raw materials</li> </ul>	<ul style="list-style-type: none"> <li>Develop country-specific SDS using the automatic SDS creation system that complies with overseas regulations</li> <li>Operate system capable of reinforcing the management of product information</li> </ul>
Management of chemicals	<ul style="list-style-type: none"> <li>Compliance with domestic and international regulations</li> <li>Ensuring reporting on actual quantities South Korea: REACH*4 (June 2016), USA: TSCA*5 (September 2016)</li> </ul>	<ul style="list-style-type: none"> <li>Achieved compliance with Japan's revised Industrial Safety and Health Act (onsite display, expansion of target substances, risk assessment) (June 2016)</li> <li>Completed a report on actual quantity in South Korea (REACH) and USA (TSCA)</li> </ul>	<ul style="list-style-type: none"> <li>Maintain appropriate compliance with domestic and international regulations</li> <li>Survey and address latest trends in South Korea (REACH), USA (TSCA), and Thailand (Chemical Substance Control Law)</li> <li>Achieve compliance in countries introducing GHS, including Canada (June 2017)</li> </ul>
Safety and assurance for food products	<ul style="list-style-type: none"> <li>Ensuring continued provision of product information to customers</li> <li>Gathering of information on laws related to food labeling standards and ensuring continued compliance</li> </ul>	<ul style="list-style-type: none"> <li>Continued to provide customers with reliable product information based on product standard documentation and written replies concerning quality management</li> <li>Shared information related to food labeling standards with the accompanying FAQs through an in-house task force and set basic policies</li> </ul>	<ul style="list-style-type: none"> <li>Continue providing reliable product information to customers including product standard documentation</li> <li>Continue gathering all regulatory information related to food labeling standards and maintain reliable responsiveness</li> </ul>

\*1 An initiative unique to ADEKA to check for thorough deployment of measures regarding quality and safety. / \*2 International strategy for achieving the goals adopted at the summit meeting on sustainable development in 2002. / \*3 Safety Data Sheets containing information including the name of the chemical substance, its properties, hazards, and necessary precautions when handling. / \*4 Globally Harmonized System of Classification and Labeling of Chemicals. / \*5 The Act on Registration and Evaluation of Chemicals of South Korea, which came into effect on January 1, 2015. / \*6 Toxic Substances Control Act.

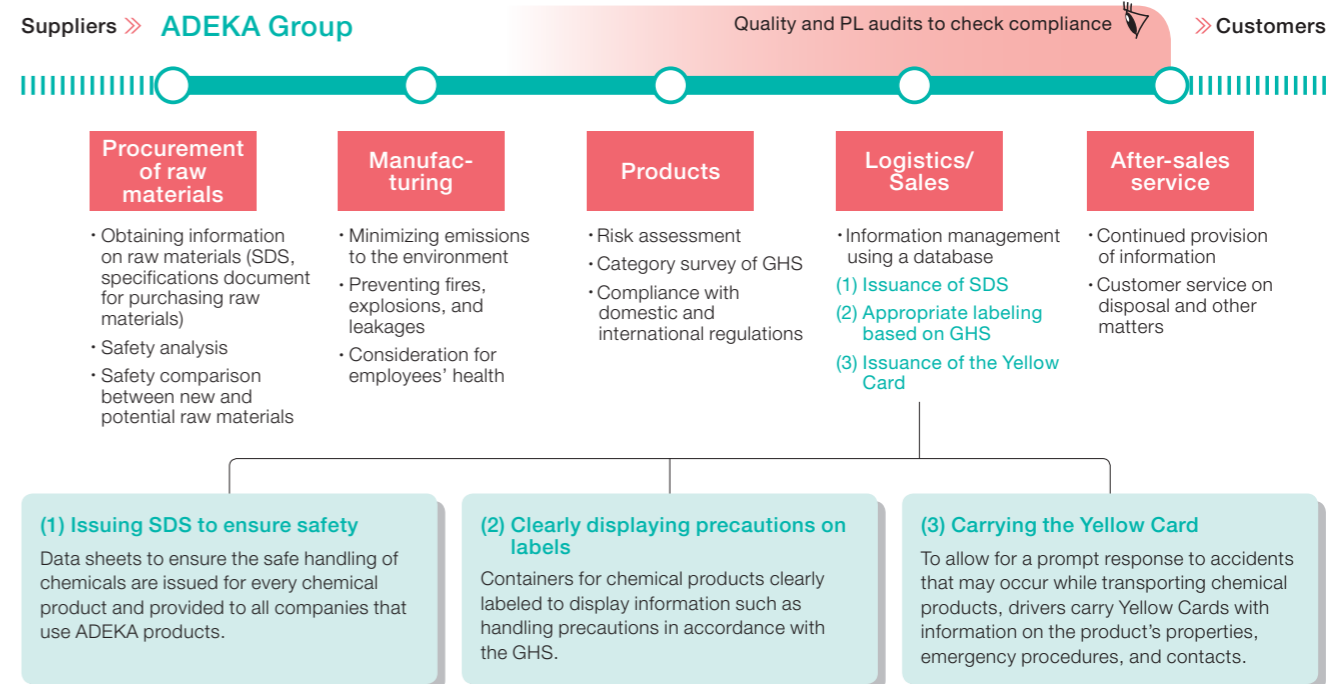
and Asian countries and provides detailed information on the chemical substances used in its products so that customers can confidently use them.

### • Food Safety and Hygiene

As a manufacturer providing food materials to its customers and consumers, the ADEKA Group pursues initiatives that ensure product safety and security while also implementing proper hygiene management and complying with related laws and regulations.

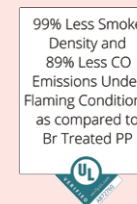
Seventy-five percent of the Group's food production sites have obtained FSSC 22000 certification and are reinforcing quality management from the dual standpoints of food safety and food defense in order to prevent internal and external contamination as well as cross-contamination. In particular, materials containing allergens are placed under stringent control, and a rigorous system of traceability is deployed to manage information from material procurement and manufacturing to sales.

### ► Supply Chain Diagram



## Polymer Additives (Flame Retardant) Receive UL Mark\*7 for First Time in the World

The ADEKA STAB FP-2000 series is an intumescent flame retardant widely used in household electrical appliances and construction materials as a product that makes plastics highly flame resistant. It also reduces black smoke density and toxic substances, including carbon monoxide, from plastic under flaming conditions by 99% and 89%, respectively. In recognition of its safety, the retardant became the world's first product in the functional material category to obtain the verified mark from UL LLC., an independent safety organization in the United States, in May 2017.



\*7 Certification provided by UL LLC., one of the Nationally Recognized Testing Laboratories in the United States. The organization promotes the use of science to solve safety, security, and sustainability issues.