

# Chemicals and Products Safety

## Chemicals Management

To achieve the “2020 goal”<sup>\*1</sup> on which agreement was reached at the “World Summit on Sustainable Development (WSSD)” in 2002, the “Strategic Approach to International Chemicals Management (SAICM)” for promoting risk reduction based on scientific risk assessment, collection and provision of information, and other measures were adopted at the “International Conference on Chemicals Management (ICCM)” in 2006. At Nissan Chemical, we strive to minimize the negative impact of chemical products on people’s health and the environment during their lifecycle in line with the domestic SAICM implementation plan.

<sup>\*1</sup> “Aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment”



## Risk Assessment in Products Lifecycle

We perform a risk assessment (prior assessment) of each step in handling chemical products, such as the research and development, manufacture, sales and revision. The assessment of risks to human health and the environment in the value chain is based on data performed by the Biological Research Laboratories, either on its own or by outsourcing, safety test data obtained from results of searching external databases such as literature, and checking things such as data on physicochemical properties and work environment conditions. Based on the results of risk assessment, we avoid using chemicals of concern and study safe alternatives. These results are reported to top management and made known to all the relevant people in the Company. The results are also made known to people in the value chain by means such as technology transfer documents and safety data sheets (SDSs).

We also participate in Long-Range Research Initiative, an international initiative promoted by Japan Chemical Industry Association (JCIA) that seeks to provide long-term support for research on the impact of chemicals on human health and the environment. The activities we engage in aim to advance research on the assessment of risks to human health and the environment.



## Disclosure of SDS of Products

To ensure that our chemical products are used safely by our customers, we provide SDSs of all products. Customers and users can download the SDSs for all agrochemicals from our website. (<https://www.nissan-agro.net/products/index.php>). Our employees can obtain information about risks and hazards, laws and regulations, transportation, storage and methods of disposal of products from our internal SDS database for safety and compliance.

## Disclosure of Safety Summary of Chemical Substances

For minimizing the risks of chemical substances throughout the entire value chain, we participate in the GPS\*2 / JIPS\*3 activities promoted by the International Council of Chemical Association (ICCA) and JCIA. As part of our activities, we conduct risk assessments of our chemical products, conduct appropriate risk-based management, and provide safety information. The Information is compiled in GPS / JIPS Safety Summary and made available to the society.

\*2 Global Product Strategy

\*3 Japan Initiative of Product Stewardship



## Consideration for Animal Testing

Assessment made using laboratory animals is essential for the research and development of agrochemicals, pharmaceuticals, medical materials and chemical materials that are beneficial for society. Biological Research Laboratories has established Animal Testing Guideline of Nissan Chemical in accordance with the Three Rs principles of animal welfare (Replacement with alternative methods, Reduction in the use of laboratory animals and Refinement of methods for reducing pain), and laws and regulations such as the "Act on Welfare and Management of Animals". Following this guideline, the institutional Animal Care and Use Committee examines whether to conduct animal testing, both ethically and scientifically, and checks how the tests are performed to ensure that animal testing is conducted appropriately and that proper consideration is given to animal welfare.

Due to these initiatives, the Biological Research Laboratories has obtained third-party certification of its laboratory animal facilities from Japan Health Sciences Foundation.

### TOPICS

#### New Initiative to Wastewater Assessment

Since industrial effluents are directly released to the environment, reference values are set for each hazardous substance and released to the environment after they are cleared. However, this management method does not confirm the impacts on aquatic organisms and does not comprehensively assess wastewater. Currently, water environmental management methods using aquatic organisms are being studied in Japan. WET (Whole Effluent Toxicity) enables to assess the impacts of chemical substances in wastewater comprehensively by raising aquatic organisms in wastewater and clarifying their effect on the biological body. The Biological Research Laboratories has applied the evaluation technology for aquatic organisms cultivated through product safety assessments, and has begun initiatives to introduce WET that incorporates the viewpoint of organisms into plant effluent assessment.

