

# Basic Chemicals Segment



## Review of Operations

As a manufacturer of raw materials for petrochemical products, Idemitsu group is developing business activities in cooperation with our customers and group companies, taking advantage of our consistency with the oil refining business.

## Business Environment Outlook

Global demand for ethylene and other basic chemicals will continue to grow due to population growth in emerging countries and the expansion of the middle-income bracket. Demand for shale gas oil-based chemicals in North America will increase as demand grows. In addition, the issue of waste plastics has become a matter of growing public concern, and efforts to minimize waste generation have begun in earnest worldwide. In Japan, the demand structure for petrochemical products is expected to change (increased demand for individualized foods and medical and nursing care services) due to the declining birthrate, aging population, and declining population, and to increase their functionality. We are also working to develop new technologies and applications for recycled products to strengthen product recycling.

## Medium-term Management Plan Business Policy

We will work on "Appropriate response to business risks," "Restructuring of existing businesses" and "Global development of new businesses" with the aim of to "Build a business structure that can flexibly respond to changes in the business environment and support corporate management as a part of the revenue base business." In response to business risks, we will strengthen cooperation with other companies in the Chiba and Shunan petrochemical complexes and enhance cost competitiveness by diversifying raw materials (production of chemical products from gas and other sources instead of naphtha, the main raw material). Structural reforms in the existing business include the promotion of fuel & chemical in conjunction with the petroleum business to ensure efficient equipment operation and improve profitability. Overseas, while responding to the strengthening of plastic-related regulations, we will gather information on the needs of each country and explore new business possibilities.

## Risks and Opportunities

### Risk

- Expansion of sales of petrochemical products from shale gas oil in North America to Asia
- Decline in demand due to economic slowdown caused by prolonged trade friction between the United States and China
- Concerns over a slowdown in demand growth for general-purpose plastics due to the reduction of disposable plastics
- Increasing public interest in waste plastics and strengthening regulations

### Opportunity

- Expanding demand for petrochemical products mainly in Asia
- Continuation of abundant supply and cost advantage of shale gas in North America
- Expanded use of plastics with added functionality to solve social issues such as food loss and CO<sub>2</sub> reduction

### TOPICS

#### Addressing the waste plastic problem

The Material Circular Economy (resource recycling economy) Working Group was established in 2019 to promote activities to solve the waste plastic problem across the company. We are also working on the practical application of chemical recycling, in which collected plastics are decomposed using the decomposition equipment of petroleum refining and then returned to chemical raw materials. We are also a member of industry organizations such as the Japan Initiative for Marine Environment (JaiME) and Japan Clean Ocean Material Alliance (CLOMA), and are promoting initiatives in line with the government and industry.