

December 6, 2022

## **Initiative to Ensure Stable Product Supply and Reduce Environmental Impact by Adopting a Regular Shipping Route with RORO Ships\*<sup>1</sup> from Wakayama Shimotsu Port**

Kao Corporation is using RORO ships\*<sup>1</sup>, which carry trailers separately from trucks, to ship products from the Wakayama Plant to the Tokyo metropolitan area. By using RORO ships, Kao will reduce the burden of long driving time and long-distance transportation on truck drivers and promote the reduction of environmental impact, such as reducing CO<sub>2</sub> emissions.

Wakayama Prefecture has been promoting the establishment of regular shipping routes using RORO ships\*<sup>1</sup> as cranes are not required to move cargo and it is effective for transporting relief supplies in the event of a disaster. In collaboration with Wakayama Prefecture and as a result of the joint test transportation conducted in June 2022 with corporations and other transportation companies nearby Wakayama City, the operation of regular shipping service every Saturday realized on October 8, 2022.

In this initiative, at Wakayama Shimotsu Port, which is about one kilometer from the Wakayama Plant, trailers filled with products are loaded onto a RORO ship\*<sup>1</sup> operated by Daio Kaiun Co., Ltd. (Ehime Prefecture). The drivers detach the trailers and deboard, leaving only the trailers to be shipped to Chiba Central Wharf. After arriving, other drivers connect trucks to the trailers and transport them to logistics centers in Shonan (Chiba Prefecture), Iwatsuki (Saitama Prefecture), Hachioji (Tokyo) and Kawasaki (Kanagawa Prefecture).

### ■Cargo delivery to a RORO ship



The truck boards

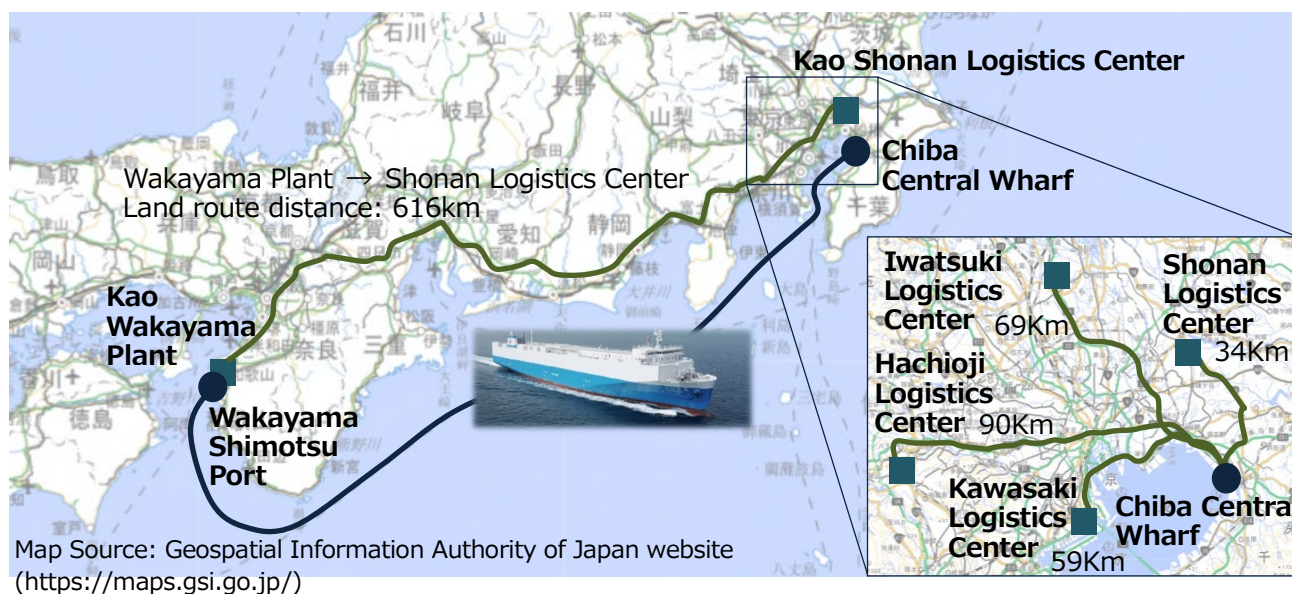


Only the trailer is loaded



The driver/ truck deboards

■Wakayama Plant / RORO shipping route / Logistics centers in the Tokyo metropolitan area



■Regular route service ceremony, October 8, 2022



In order to ensure a stable transportation capacity, it is important to address the shortage of truck drivers and improve their working environment. Through this modal shift<sup>\*2</sup>, trailers can move nearly 600 kilometers without drivers and the shortened land transportation distance has enabled a day trip for truck drivers. Although shipping costs will increase for some transportation routes, this initiative was adopted in consideration of the ICP<sup>\*3</sup> price (18,500 yen/ton-CO<sub>2</sub>) as it is expected to reduce 355 tons of CO<sub>2</sub> emissions per year.

\*1 RORO (Roll-on Roll-off) ship: A ship that carries only the trailer loaded with cargo.

\*2 Modal shift: Switching from freight transportation such as trucks to railroads and ships, which have a lower environmental impact.

\*3 ICP (Internal Carbon Pricing): A system in which companies set their own prices for CO<sub>2</sub> emissions and promote low-carbon investments and measures.

With the corporate purpose “To realize a Kirei World in which all life lives in harmony,” Kao Group established its ESG strategy, the Kirei Lifestyle Plan in April 2019, and since 2021, has been employing the Kao Group Mid-term Plan 2025 (K25) with its vision of “protecting future lives” and “sustainability as the only path.”

Kao is promoting *Yoki-Monozukuri*<sup>\*4</sup> with ESG integration which preserves resources and reduces the burden on the environment, and is working to help people live richer lives and create a caring and resource-circulating society that develops sustainably.

By utilizing rapidly evolving digital technology and collaborating with various partners, Kao aims to develop innovative technology and build a sustainable supply chain that meets the expectations of society and is kind to people, society and the Earth.

<sup>\*4</sup> Kao defines *Yoki-Monozukuri* as a strong commitment by all members to provide products and brands of excellent value for consumer satisfaction.

## About Kao

Kao creates high-value-added products and services that provide care and enrichment for the life of all people and the planet. Through its portfolio of over 20 leading brands such as *Attack*, *Bioré*, *Goldwell*, *Jergens*, *John Frieda*, *Kanebo*, *Laurier*, *Merries*, and *Molton Brown*, Kao is part of the everyday lives of people in Asia, Oceania, North America, and Europe. Combined with its chemical business, which contributes to a wide range of industries, Kao generates about 1,420 billion yen in annual sales. Kao employs about 33,500 people worldwide and has 135 years of history in innovation. Please visit the Kao Group website for updated information.

<https://www.kao.com/global/en/>

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