



LDAN SK FERT®

LOW DENSITY
AMMONIUM NITRATE

KAO SURFACTANT TECHNOLOGY

Chemical solutions that bring value to global industry

KAO CORPORATION

Founded in Japan in 1887, Kao Corporation is a multinational chemical company with a long history of innovation. Today, more than 30,000 employees worldwide are dedicated to satisfying customer needs around the globe.



LEADING THE WAY IN AMMONIUM NITRATE

For more than 25 years, Kao has led the way in the development of Technical Ammonium Nitrate (TAN) solutions, also named Low Density Ammonium Nitrate (LDAN).

We provide our customers with full technical support through different product categories specially formulated for the industrial Ammonium Nitrate (AN) prills, helping them to bring exceptional products to market.

THE KAO COMMITMENT

Our expertise, driven by R&D, is continuously available to industrial AN manufacturers through established partnerships worldwide. Aligned with the philosophy of Kao, we are always ready to develop tailored solutions for the challenges of ammonium nitrate production, storage and transport.

«We design and provide solutions that promote sustainable development anticipating our customers' needs and providing comprehensive responses».

Fully Integrated Support



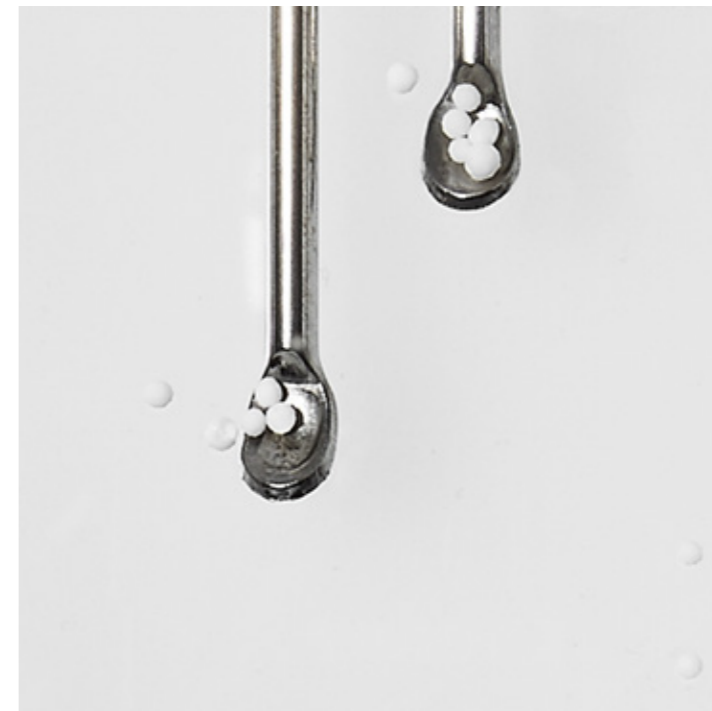
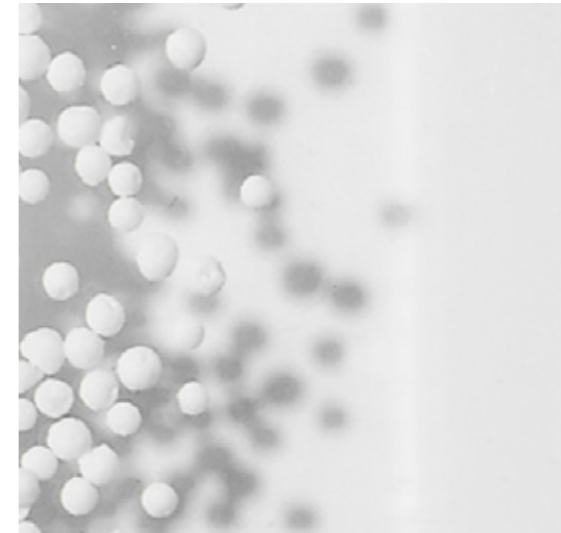
AMMONIUM NITRATE

Meeting the needs of our clients

While AN solutions, consisting of ammonium and nitrate, have developed a vital role in the fertilizer industry over time for crop nutrition, its possibilities are further extended when obtained in a low-density form. LDAN has a higher porosity that improves solvent absorption, which is an important parameter for the mining industry, where it is commonly used in prill form.

In the course of AN solidification in the prill tower, industrial processes are able to obtain a specific internal configuration that will define the density and microporous structure as key aspects. In the transformation process to low-density form, internal additives represent a clear upgrade to enhance the performance of these features.

LDAN is characterized by its strong hygroscopic properties, which allow quick dissolution in water. Due to this, external protection is highly recommended to prevent interactions on the prills surface, to promote a caking tendency and moisture absorption, while limiting organic content addition.



DISCOVER OUR SOLUTIONS

Internal Additive

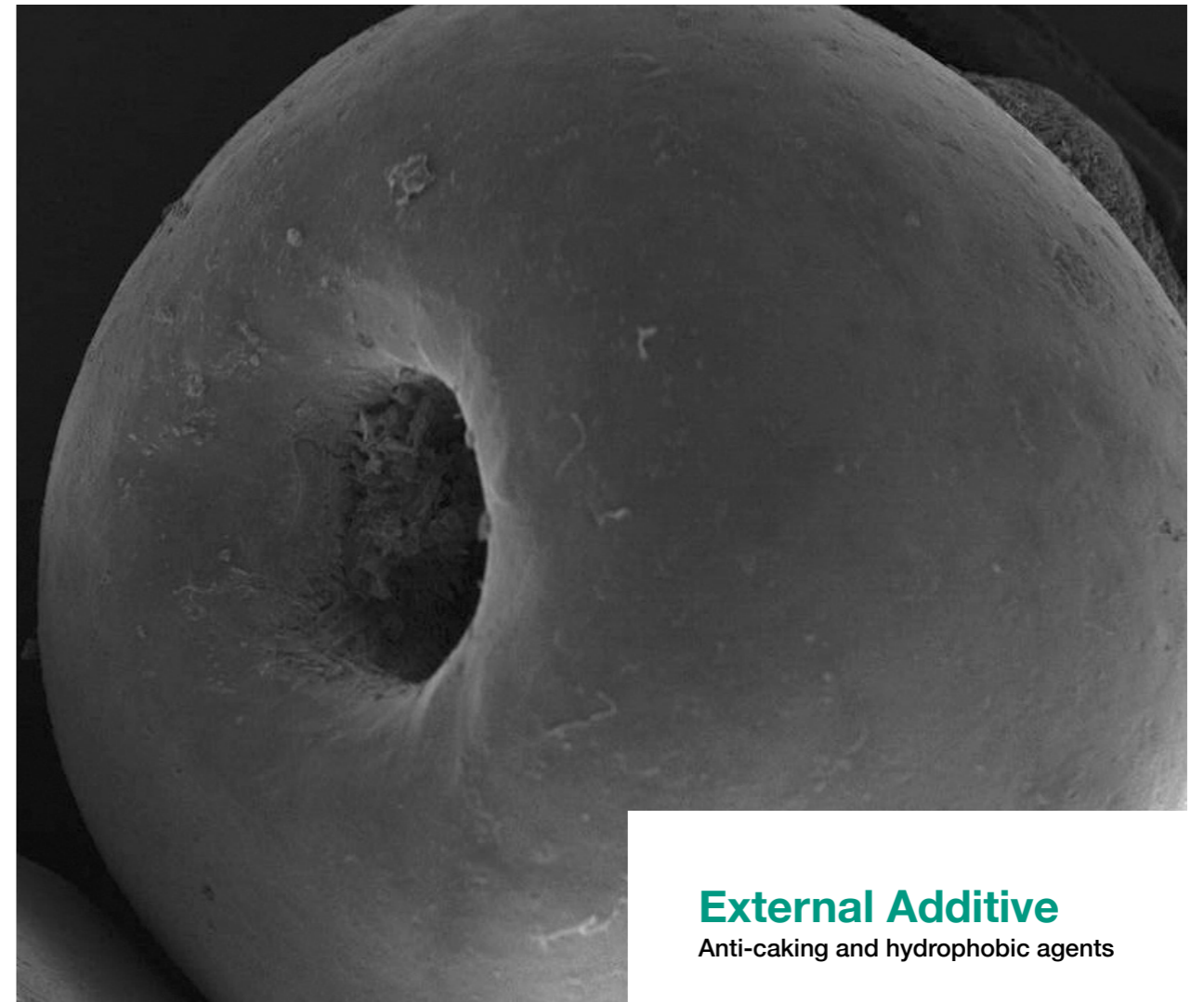
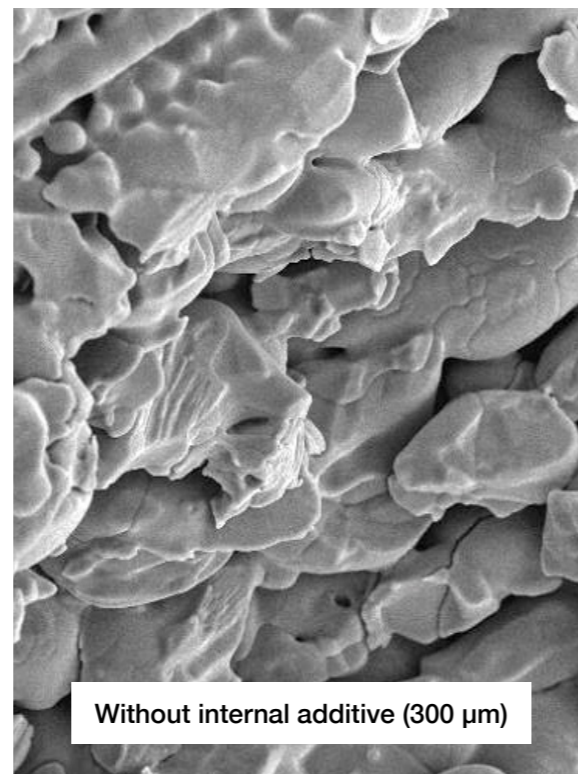
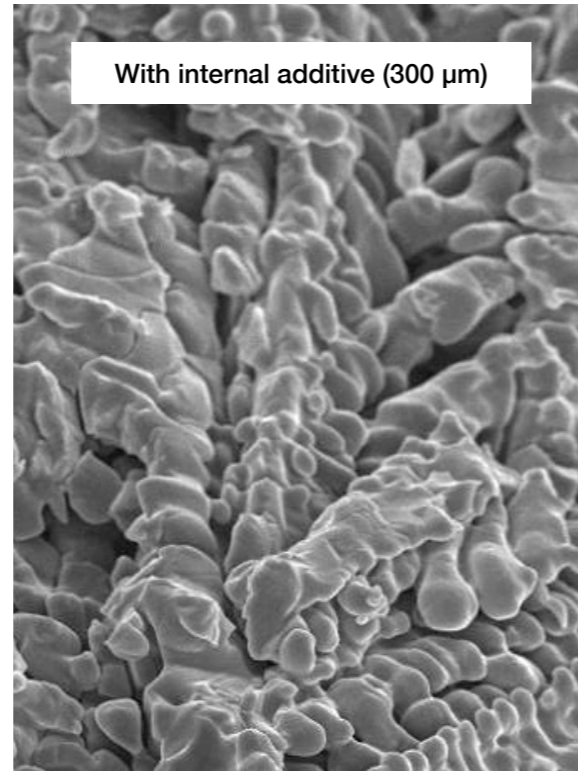
Porosity and thermostabilizer agents

LDAN requires specific quality parameters such as density and porosity, which are critical for efficient and homogenous fuel oil absorption, but prills have to provide hardness as well.

These characteristics are obtained by using internal additives and modifying different parameters of the manufacturing process to optimize the crystal morphology of LDAN.

Kao makes specialized surfactants that function as porosity control agents covering a broad range of industrial challenges. These water-based products can be delivered in concentrated formulations or in already-made solutions in water.

Internal & External Kao additives are supplied under the brand name **SK FERT®**.

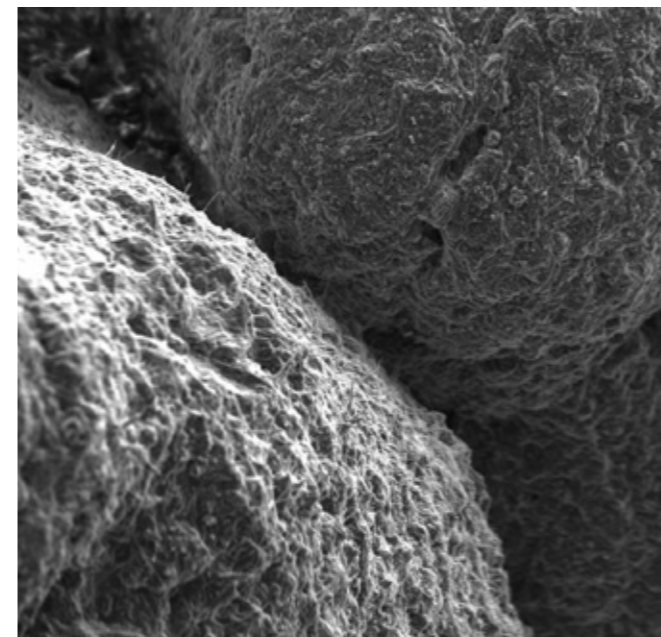


External Additive

Anti-caking and hydrophobic agents

Our exclusive Kao external additives have been developed for their use with LDAN. They are tailor-made formulations based on mineral oils and surfactants with high anti-caking and high hydrophobic characteristics.

Thanks to Kao external additive, LDAN protection is clearly improved against agglomeration phenomena on the surface of the prill. Beyond their free-flowing effect, external additives also provide a barrier, bringing protection from moisture absorption during humidity fluctuations while strengthening prill friability.





For requests and further inquiries about our products, scan the QR code to connect with Kao

