



WE'LL GIVE YOU A HAND

Regardless of the size or type of feed mill or integrated livestock operation you run, handling solutions from Evonik can enhance your efficiency and profitability. Speak with your local Evonik partners to find out more about how you can profit from our handling solutions. Let's talk about what our targeted tools, services and know-how can do to take your business to the next level – and set you apart from competitors.

animal-nutrition@evonik.com



Check out our video – AMINOSys® 100 unit in Brazil

EVONIK OPERATIONS GMBH
 Nutrition & Care
 Animal Nutrition Business Line

animal-nutrition@evonik.com
www.evonik.com/animal-nutrition

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

12/2020

Europe
Evonik Operations GmbH
 Rodenbacher Chaussee 4
 63457 Hanau-Wolfgang, Germany
 Phone +49 6181 59-6766

Middle East / Africa
Evonik Africa (Pty) Ltd.
 IBG Business Park
 11 Enterprise Avenue
 Midridge Ext 10
 Midrand 1685, South Africa
 Phone +27 11 697-0715

North America
Evonik Corporation
 1701 Barrett Lakes Blvd, Suite 340
 Kennesaw, GA 30144, USA
 Phone +1 678 797-4300

Latin America
Evonik Brasil Ltda.
 Rua Arquiteto Olavo Redig de Campos, 105,
 Torre A
 04711-904 – São Paulo – SP – Brazil
 Phone +55 11 3146-4135

Asia North
Evonik (China) Co., Ltd.
 Unit 1005 A, Tower D1,
 DRC Liangmaqiao Diplomatic Office Building,
 19 Dongfang East Road, Chaoyang District,
 Beijing 100600, P.R. China
 Phone +86 10 6587-5300

Asia South
Evonik (SEA) Pte Ltd.
 3 International Business Park
 #07 – 18 Nordic European Center
 Singapore 609927
 Singapore
 Phone +65 6809-6666

HANDLING SOLUTIONS SERVICES
 Simply efficient & tailored to your needs



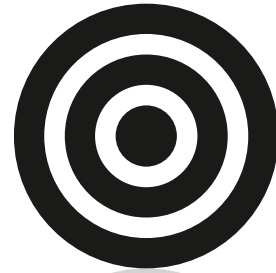
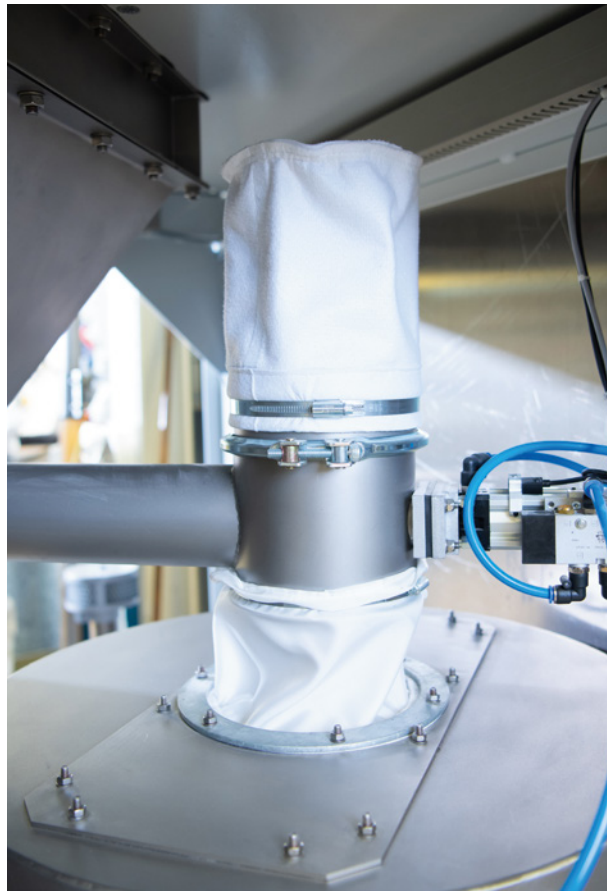


GET A HANDLE on micro-ingredients

Tiny proportions, huge effects: whether medical additives, vitamins, enzymes, amino acids or other supplements, micro-ingredients can make all the difference in your feed.

Essential amino acids like methionine, lysine or threonine have an especially pronounced impact on both feed quality and cost. No wonder micro-ingredient dosing and handling are such decisive factors in profitable feed production.

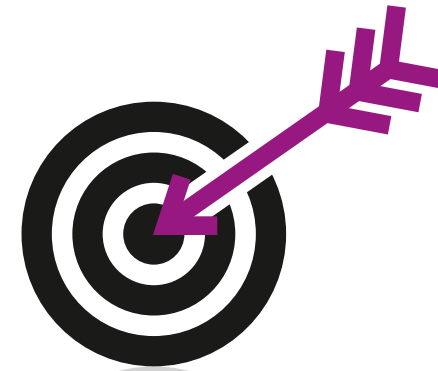
The globally leading animal nutrition specialists at Evonik have developed handling solutions and application consulting services to help you bring your production up to the next level of efficiency. Based on decades of experience as a pioneering producer of amino acids and other feed additives with in-depth expertise in application technology, Evonik Animal Nutrition is in touch with every aspect of the livestock production value chain. You can count on our handling experts for full support in evaluating optimization potential in your processes and implementing solutions.



CHALLENGE

In larger feed mill operations and integrated livestock production systems, there are significant economic advantages to adding amino acids to the compound feed directly during the production process. It allows fine-tuning of least-cost formulations to optimize animal performance according to the needs of the individual species and age groups. Yet, while direct dosing reduces volume and cost of premixes, it increases the number of ingredients to be handled in the feed mill.

In addition, the number of micro-ingredients continues to increase in step with scientific advances in animal nutrition. At higher inclusion rates, handling of bagged micro-ingredients is labor-intensive – dosing may become a bottleneck and significant cost-driver.



SOLUTION

Evonik Animal Nutrition answers these needs with a range of handling solutions and consulting services to help you improve feed mill productivity and feed quality. Our targeted offering is designed and developed specifically to boost the overall economic performance of your business.

It all begins with an analysis of your supply chain, storage, dosing and mixing processes. Together with your in-house technical team, our experts will identify optimization potential and suggest further steps.

As amino acids are added into the batch mixer, your mixing process will receive special attention. By carrying out our **AMINOBatch® WPT**, we can gain key insights into your dosing and mixing processes. You will receive a comprehensive report on micro-ingredient handling as well as the accuracy and repeatability of your batch mixing lines. This detailed evaluation of your complete batch mixing process places us in a position to help you optimize its design in terms of mix-cycle segmentation, fill rate and addition sequence of macro- and micro-ingredients and liquids. You get all the knowledge and help you need to enhance mix homogeneity and mixer efficiency.

You can also rely on us for state-of-the-art hardware: we offer flexible and highly efficient handling equipment to support trouble-free storage, dosing and in-plant transportation of Evonik additives. For example, the dedicated **AMINOSys®** line of handling solutions are optimized for feeding Evonik amino acids into your process.

WHAT'S IN IT FOR YOU

You get exactly the type and scope of support you need to improve your quality, consistency and business results. With our comprehensive consulting and adapted handling solutions, you can optimize your dosing and mixing processes, improve amino acid dosing accuracy, minimize product loss and reduce labor costs.

BENEFITS AT a glance

- One-stop shop with proven expertise and excellence in amino acid handling
- Onsite surveys and consulting for process evaluation
- Handling solutions for multiple amino acids
- Precise, flexible and easy-to-integrate solutions
- Services tailored to your needs
- Technology engineered and manufactured in Germany
- Expert and reliable after-sales service with a global reach

HERE'S how it works

Our offering is modular and flexible. Below you'll find the main features of the different tools and service components.

Fully automated dosing:
AMINOSys®

Our package solution including consulting, hardware and software, **AMINOSys®** covers all your micro-ingredient handling and dosing needs. The **AMINOSys®** equipment range is made up of flexible solutions for fully automated direct dosing of Evonik amino acids as well as for conveying from bulk silos to existing micro-ingredient systems. We also provide comprehensive engineering and commissioning support to ensure a smooth transition.

Remote inventory management:
AMINOTrac®

To ensure that your **MetAMINO®** or **Biolys®** silos are refilled on time, we provide **AMINOTrac®** – the Evonik vendor-managed inventory service. Designed specifically to optimize utilization and availability of **AMINOSys®** equipment, the system monitors filling levels of silos remotely. Based on forecast scenarios, optimum replenishment is scheduled and alerts are triggered to ensure timely call-off or deliveries. **AMINOTrac®** also enables our technical support team to analyze system performance and provide you with targeted maintenance instructions.

Mixing homogeneity:
AMINOBatch®

The statistical test procedure **AMINOBatch®** gives you a realistic evaluation of mixing quality and uniformity. Supplemented amino acids are analyzed in 10 compound feed samples out of a batch of feed, and the results compared to a sample set. This enables you to reduce the coefficient of variation to a minimum (often as low as <5%). Knowing that the distribution of supplemented amino acids in the feed is uniform, you can reduce the safety margin and achieve cost savings while ensuring consistent quality and livestock performance.

Onsite survey and evaluation:
AMINOBatch® WPT

A special process for capturing data on the working precision of dosing and mixing lines for all amino acids, **AMINOBatch® WPT** gives you a comprehensive overview in one single test. Our experts review the test results and conduct an onsite survey to identify optimization potential. The test provides results for the application of dry and liquid additives in the same mixing line under comparative conditions.