

EASTMAN

Expertise for your feed

Eastman Acitra™

Eastman Entero-Nova™ | Eastman Keitex™

Eastman Propcorn™ | Eastman Protural™



Eastman is a global leader in organic acid production and derivatives like monoglycerides and a major producer of high-quality choline chloride. Leverage our unique customization capabilities thanks to in-house raw material production. We are here to support your success.





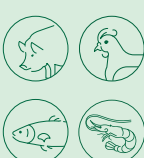

Improved gut health

Eastman's specialty products are designed to provide specific benefits for animal health. The **Eastman Acitra** family of acidifiers improves feed utilization through acidification and acts as a gastric barrier to harmful bacteria.

Eastman Entero-Nova offers solutions for improved digestion, enhanced nutrient absorption and overall animal health. These solutions offer long-reaching efficacy via feed, are easy to handle and can be customized to your unique needs. Combined with free fatty acids, monoglycerides provide greater pathogen inhibition, remaining effective throughout the gut regardless of pH levels. Entero-Nova is designed for use in feed in both liquid and solid form.

Eastman Protural offers increased performance for piglets during the postweaning period.




Product line	Description	Benefits
Acitra 	Formic acid-based blends with multiple combinations of ready- or tailor-made solutions	Acidifies feed, leading to: <ul style="list-style-type: none"> Better natural acidification in the crop and stomach of animals, acting as a gastric barrier to harmful bacteria Improved protein digestibility enhances overall health and performance Some blends combine short- and medium-chain fatty acids, which: <ul style="list-style-type: none"> Prevent the growth of a broader range of harmful bacteria Provide an energy source for animals
Entero-Nova 200 	Concentrated blends of monobutyryl and tributyrin suitable for poultry and swine	<ul style="list-style-type: none"> Provides a source of concentrated butyrates in the intestine Improves absorption capacity of intestinal villi Intestinal morphology and barrier function are optimized, making animals more resilient and healthier Good handling properties with a neutral taste and odor Controls cellular stress and inflammation
Entero-Nova 400 	Specialized blends of monoglycerides of short- and medium-chain fatty acids against gram-negative bacteria	<ul style="list-style-type: none"> Promotes intestinal balance during stress, including weaning Effective against gram-negative bacteria and works synergistically to control major pathogenic bacteria in swine and poultry, including <i>Salmonella</i>, <i>E. coli</i> and <i>Clostridium</i> without inhibiting <i>Lactobacillus</i>
Entero-Nova 500 	Customized blends of organic acids and monoglycerides	<ul style="list-style-type: none"> Supports intestinal balance under stress and optimize pH levels in the crop and stomach Space saving, which streamlines feed mill operations; eliminates the need for extra silos or dosing equipment and enhances feed hygiene while providing synergies for gut health Ensures a smooth transition from acid blends to monoglycerides with proven ingredient expertise
Entero-Nova 800 	Synergistic combinations of short- and medium-chain monoglycerides against gram-positive bacteria	<ul style="list-style-type: none"> Improves gut integrity Protects natural bacteria of the gut Effectively manages gut inflammation and pathogens, particularly gram-positive bacteria Addresses poultry, swine, fish and shrimp
Protural 	A sodium-benzoate-based zootechnical additive	<ul style="list-style-type: none"> Improves postweaning piglet performance by preventing digestive disorders through the supplementation of sodium benzoate

Effective feed hygiene

Effective hygiene protects your manufacturing line and the food chain the world relies on. **Eastman Keitex** feed hygiene enhancer is specifically designed to ensure effective *Salmonella* control in feed and in feed raw material. It controls *Salmonella* in protein meals and cereals with proven efficacy.

The use of 10 kg/ton of Keitex LF1 has consistently achieved a 100% success rate since 2019. It delivers effective protection against harmful pathogens, including *Salmonella*, *E. coli* and other enterobacteria. Keitex has excellent technical benefits related to metal corrosion, surface tension and heat stability. Its performance has been demonstrated across various applications, including different processing methods, levels of contamination and types of feed.



Product line	Description	Benefits
Keitex 	Proven solution of short- and medium-chain fatty acids and plant bioactives	Ensures <i>Salmonella</i> control with moderate application rates and specific user-friendly properties



Successful preservation and acidification

Eastman Acitra and **Eastman Propcorn** are designed to address issues such as nutrient degradation through unwanted mold growth and enhance feed hygiene in feed production.

These solutions are essential for maintaining product quality, preventing spoilage and ensuring hygiene

and safety. They extend shelf life, enhance texture, reduce microbial growth and improve process efficiency. They also offer cost savings and promote sustainability.

Talk to us and leverage our technical to prevent nutrient losses and improve profitability and feed performance.

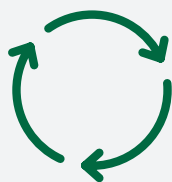
Product line	Description	Benefits
Acitra 	Formic acid-based blends with multiple combinations of ready- or tailor-made solutions	<ul style="list-style-type: none"> • Regulates pH • Enhances feed quality • Provides effective feed preservation • Maintains good digestive health • Reduces the risk of spoilage caused by molds, yeasts and <i>Enterobacteriaceae</i>
Propcorn 	Buffered products containing propionic acid and its salts	<ul style="list-style-type: none"> • Ensures high-quality preservation of grain, corn, hay and straw • Optimizes feed moisture • Prevents spoilage • Improves process efficiency

Eastman — more than 70 years in animal nutrition



3

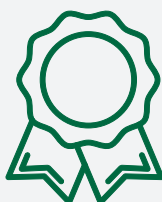
Animal nutrition research and development centers



Backward integration and full traceability



Eastman was founded in 1920 and the first acid feed additive was produced in 1951.



ISO 9001:2015
ISO 14001:2015

Sustainability and quality

We're committed to sustainability, and we actively collaborate with suppliers and customers to meet sustainability requirements. We've taken significant steps to reduce our carbon footprint through initiatives like the change in raw material source to liquefied natural gas at our Oulu site. We remain dedicated to driving sustainability across our operations and the industry.

All our feed products adhere to FAMI QS or GMP+ and are therefore quality assured at the highest industry standards.



10

Production sites for animal nutrition

Europe: Belgium, Finland, Estonia, the Netherlands (3) and Spain
U.S.: Florida, Louisiana and Tennessee

Let's unlock the full potential of your animals and achieve sustainable growth together.

eastman.com/animalnutrition



EASTMAN

Eastman Corporate Headquarters

P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.

U.S.A. and Canada, 800-EASTMAN (800-327-8626)
Other locations, +(1) 423-229-2000

eastman.com/locations

Although the information and recommendations set forth herein are presented in good faith, Eastman Chemical Company ("Eastman") and its subsidiaries make no representations or warranties as to the completeness or accuracy thereof. You must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment, or formulation in conflict with any patent, and we make no representations or warranties, express or implied, that the use thereof will not infringe any patent. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND NOTHING HEREIN WAIVES ANY OF THE SELLER'S CONDITIONS OF SALE.

Safety Data Sheets providing safety precautions that should be observed when handling and storing our products are available online or by request. You should obtain and review available material safety information before handling our products. If any materials mentioned are not our products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

© 2024 Eastman. Eastman brands referenced herein are trademarks of Eastman or one of its subsidiaries or are being used under license. Non-Eastman brands referenced herein are trademarks of their respective owners.