AminoShure™-XM

Precision Release Methionine

Survive the TMR.
Bypass the Rumen.
Fuel the Cow.

balchem

The Difference is

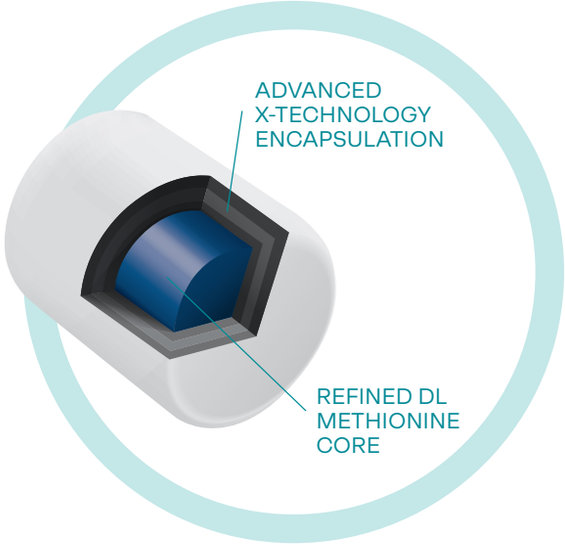
Balchem has invested more than 50 years perfecting the art and science of encapsulation. And with X-Technology, encapsulation has taken a leap forward. This new encapsulation system optimizes core composition, coating technology and release timing to create a revolutionary new encapsulated methionine product.

Payload is the Core

Through a proprietary process, the core of AminoShure-XM is created with the highest quality raw ingredients. These advancements in core development ensure delivery of the highest quality amino acid composition to the cow.

Coating Technology

Balchem uses a true encapsulation process that includes consistent layers of fatty acids around the core to create a protective barrier. Many other processes use matrix encapsulation, suspending the active ingredient in a fatty acid matrix. Matrix processes leave some active ingredient exposed on the surface and available for degradation in the rumen.



Consistent Release

AminoShure-XM is engineered to release its methionine payload in the small intestine, providing a consistent supply of methionine to the cells. You can be confident that the methionine payload is being delivered in the correct amount to the precise location.

UNIQUE ENCAPSULATION TECHNOLOGY

Not all rumen protected methionine products can survive the rigors of mixing or sitting in the TMR and still ensure the methionine gets where it's needed.

AminoShure™-XM Precision Release Methionine does it all, protecting through the TMR and the rumen to deliver the nutrient to the small intestine. With proprietary encapsulation technology, AminoShure-XM withstands harsh mixer and TMR conditions to deliver the methionine payload safely through the rumen and release it successfully in the small intestine. This allows AminoShure-XM to efficiently and cost effectively meet the cows' methionine needs.

RESEARCH-PROVEN BIOAVAILABILITY

AminoShure-XM Delivers	
Methionine, %	70
Rumen Bypass, %	80
Intestinal Availability, %	68
Methionine Bioavailability, %	54.25
Metabolizable Methionine, %	38.0

The X-Technology:
The ultimate measure of an effective encapsulated methionine is how efficiently it can deliver a unit of bioavailable nutrient to the cow. This is a function of product cost, feed stability, rumen protection and intestinal digestibility. The X-Technology carefully balances these key, though somewhat antagonistic, characteristics to deliver the best value to our customers.

Numerous research studies at multiple universities were completed to accurately characterize and validate the attributes so you can be confident when choosing AminoShure-XM as your rumen-protected methionine source.

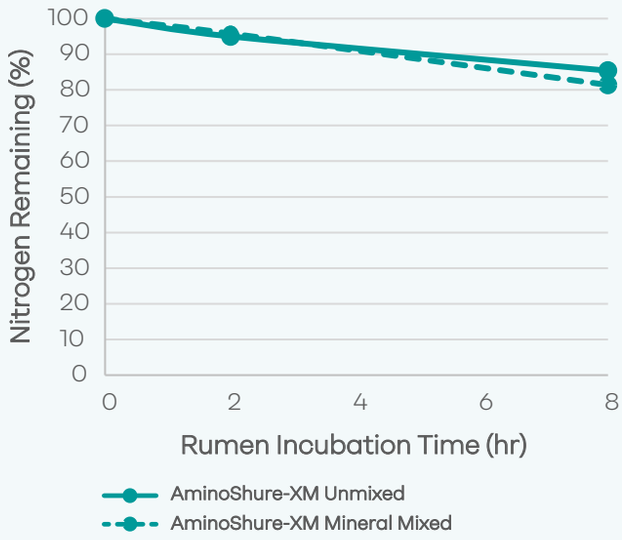
AminoShure-XM stands up and stands out.

Feed Stability:
The new X-Technology employs a true lipid-based system that is more durable than polymer and ethylcellulose coatings, without including microplastics or other harmful ingredients. New research shows AminoShure-XM maintains the encapsulation integrity in both mineral mixes and TMRs.

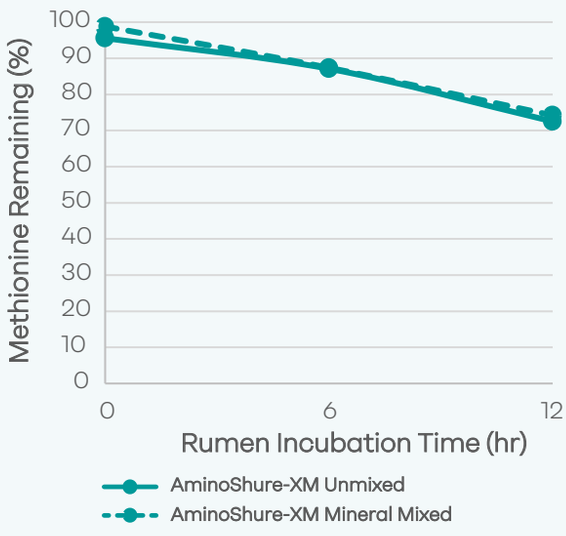
Rumen Stability:
The X-Technology is masterfully designed to resist ruminal degradation, maximizing the nutrient payload delivered to the small intestine.

Intestinal Release:
The X-Technology releases the methionine into the small intestine where it is absorbed and utilized by the cow to maximize productivity.

Mineral Mix Stability of AminoShure-XM



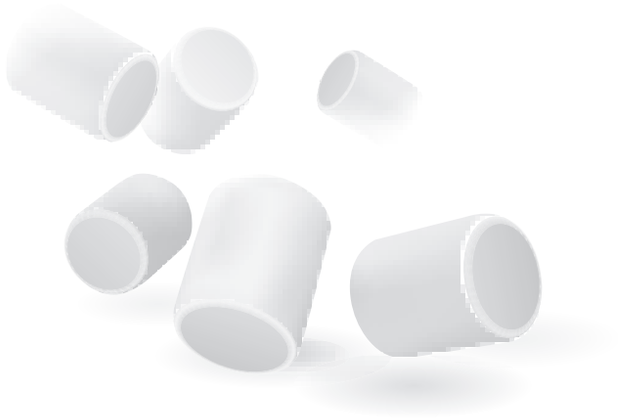
TMR Mix Stability of AminoShure-XM



See the Value of Aminoshure-XM in Your Herd.

Contact your local Balchem representative at ANH.Marketing@Balchem.com or visi
details. We'll show you how AminoShure-XM will fit your amino acid balancing progra

METHIONINE'S BIG IMPACT



Increased Milk Protein Production

Milk protein is a highly valued milk component due to its importance in cheese production. Research shows that supplementing the ration with AminoShure™-XM Precision Release Methionine ensures cows absorb what they need to produce more milk protein – Up to 0.10–0.25% increase in milk protein content.

Reduced Environmental Impact

Overfeeding protein is a common approach to helping meet the cow's methionine requirement. This results in higher levels of nitrogen and phosphorus excretion into the environment. With AminoShure-XM you can dial-in the ration's methionine level to meet the herd's needs, decreasing the potential for environmental impact.

Improved Transition and Early Lactation Performance

Research shows that cows in transition and early lactation respond well to supplemental methionine. This is primarily due to limited dry matter intake during very early lactation. Delivering this required amino acid leads to a smoother transition and higher peak milk production.

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am and deliver more to your bottom line.

AminoShure™-XM
Precision Release Methionine

Why Balance for Amino Acids?

Dairy cows do not have a protein requirement, but rather an amino acid requirement from which proteins are synthesized.

Methionine, an essential amino acid for mammals, is critical for protein synthesis, supporting tissue maintenance, growth, reproduction, and milk protein production in dairy cattle.

As the first-limiting amino acid, insufficient methionine hinders protein synthesis, compromising cow health and productivity.

Cows obtain methionine from feed and rumen microbial protein, but traditional feed sources are degraded by rumen microbes, reducing absorption. Rumen-protected methionine ensures delivery to the small intestine for effective absorption.

By optimizing your ration with rumen-protected amino acids, you can:

Boost milk and milk components

Improve cow health and fertility

Reduce feed costs by lowering crude protein

Protect the environment by reducing nitrogen waste

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