

ADISSEO'S METHIONINE SOLUTIONS FOR AQUAFEED

In diets for aquaculture species, methionine is one of the essential and most limiting amino acids. It is present in most marine proteins but generally the methionine content of natural ingredients is low, so to meet the animals' requirements, additional methionine must be provided in their feed as a nutritional feed additive.

Methionine deficiency in fish and shrimp will restrain protein synthesis and suppress growth as well as cause negative effects on health parameters.

Adisseo is a major player on the methionine market, and seeks to fully meet all customers' needs by offering two different methionine products – one liquid, the other solid:

- **Rhodimet**[®] **AT88**, a concentrated liquid source of DL-hydroxy-methionine that is particularly well suited to large and medium-sized modern feed millers and integrators.
- Rhodimet® NP99, a powder source of DL-methionine for use in premixes, minerals and some compound feeds.

RHODIMET®: THE OPTIMAL CHOICE OF FEED MILLERS

Rhodimet® AT88 is a DL-hydroxy methionine, containing 88% DL-2-hydroxy-4-methylthiobutanoic acid (DL-HMTBA) and 12% water and:

- is the most economical form of methionine, offering important savings
- is 100% active
- improves the productivity of feed mills
- offers practical advantages: no dust, convenient storage, auto-mation

Rhodimet® NP99 is a white, flowable powder of high purity containing at least 99% DL-methionine and less than 0.3% water content and:

- is easy to use
- is 100% active

- offers a simple solution for premixers and smaller feedmills
- is supported by Adisseo's strong expertise in DL-methionine production





RHODIMET®: 100% EFFECTIVE SOURCES OF METHIONINE FOR AQUACULTURE

Scientific evidence confirms that both Rhodimet® forms (DL-HMBTA and DL-methionine) are equally effective to meet the requirements of fish and shrimp.

Focusing on the DL-HMTBA:

- DL-HMTBA is **fully absorbed by** passive diffusion and active transport while DL-methionine is only absorbed by active transport
- DL-HMTBA is fully converted to L-methionine like D-methionine
- A number of studies point to **100% biological value** of DL-HMTBA as source of methionine in aquatic species

SUPPORT AND EXPERTISE



- * Optimise your feed formulation: Adisseo gives you access to nutritional expertise as well as scientific and technical knowledge, to achieve cost-effective aquafeed formulations with optimum use of Rhodimet®
- Adisseo offers Rhodimet[®] DIMension (Design, Implement, Monitor), a comprehensive service and support program to ensure smooth transition from DL-methionine to Rhodimet[®] AT88

ENSURE YOUR SUPPLY

Adisseo has three world-class and fully-integrated platforms to produce Rhodimet products in Spain, France and China. You can expect supply reliability and short delivery time.



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