

## Smartamine® M

A rumen-protected source of metabolizable methionine – an essential nutrient which increases milk yield, fat, protein, and improves cow health and reproduction.

Smartamine M stands as the leading rumen-protected methionine solution, providing a concentrated source of metabolizable methionine (mMet) to precisely balance methionine levels in dairy rations. This essential nutrient plays essential functions to enhancing dairy cow health and reproduction, and increase milk yield, milk fat and protein. When amino acid levels are properly balanced, the total protein level fed can decrease. The pH-sensitive encapsulation that protects Smartamine M from rumen degradation breaks apart in the abomasum, fully releasing the methionine for absorption in the small intestine.

Form: Dry

Particle Size: 2mm diameter beadlets

mMet Concentration: 600 g/kg

Percent Methionine: 75% dl-methionine

**Bioavailability:** 80%

Pelletable: No

Packaging: 25-kg bags on one-metric-ton pallets

**Density:**  $0.75 - 0.80 \text{ g/cm}^3$ 

Research

Contact your local Adisseo representative.

## Smartamine® ML

Your most cost-effective source of metabolizable lysine.

Smartamine ML was developed using the same coating technology as Smartamine M, providing equivalent ruminal protection and intestinal nutrient release. Lysine is potentially deficient in typical dairy diets, thereby limiting maximum dairy cow performance. Research indicates that meeting the levels of methionine and lysine results in a significant improvement in feed protein utilization efficiency, animal health, and milk yield. Smartamine ML is an ideal ingredient for formulation to meet the lysine requirements of high-performance dairy cows.

Form: Dry

Particle Size: 2mm diameter beadlets

mMet Concentration: 120 g/kg mLys Concentration: 352 g/kg

**Percent Lysine:** 55% Lysine Hydrochloride **Percent Methionine:** 15% dl-methionine

**Bioavailability:** 80%

Pelletable: No

Packaging: 25-kg bags on one-metric-ton pallets,

or one-metric-ton totes

**Density:**  $0.70 \text{ g/cm}^3 - 0.80 \text{ g/cm}^3$ 







# **SmartLine**<sup>™</sup> Portfolio

✓ Best in class

Cost effective

✓ Industry leaders

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## MetaSmart®

The isopropyl ester of the hydroxy analogue of methionine. Provides two sources of methionine activity for increased milk yield, fat, protein, and improves cow health and reproduction.

MetaSmart is a unique source of rumen-protected methionine, the only one in the market that's resistant to a palletization process. Its unique molecular structure allows 50 percent of MetaSmart to be absorbed across the rumen wall. It undergoes hydrolysis to 2-hydroxy-4 (methylthio) butanoic acid (HMTBa), entering the bloodstream and converting to methionine in the liver (mMet). The remaining half of MetaSmart is hydrolyzed to HMTBa in the rumen, where it promotes rumen function. Formulating rations with MetaSmart will increase milk yield, fat, and protein, and improves cow health and reproduction.

#### Forms and mMet Concentration:

**Liquid** mMet contribution – 370 g/kg; Rumen-available HMTBa – 370 g/kg **Dry** mMet contribution – 222 g/kg; Rumen-available HMTBa – 222 g/kg

Dry Particle Size: ~300 µm

**Percent Methionine:** 

**Liquid** 74% methionine equivalent **Dry** 44.4% methionine equivalent

**Pelletable:** Yes. The only methionine product that is pelletable and fully stable in liquid feeds.

Packaging: 1,050-kg liquid totes and 25-kg bags

on one-metric-ton pallets

Density:

**Liquid** 1.07 at 20°C **Dry** 0.75 – 0.80 g/cm<sup>3</sup> **Liquid Viscosity:** 13.6 cSt

#### **NORTH AMERICA**

**Adisseo USA Inc.** 4501 North Point Pkwy, STE 200 Alpharetta, GA 30022

## Your Partner of Choice in Feed Solutions



## **RumenSmart**<sup>™</sup>

A concentrated source of ruminally active 2-hydroxy-4 (methylthio) butanoic acid (HMTBa) for increased milk fat.

**RumenSmart** contains HMTBa, which increases milk fat production and mitigates diet-induced milk fat depression. It acts in the rumen reducing the impact of dietary risk factors that lead to diet-induced milk fat depression and improving microbial protein synthesis. RumenSmart is not a source of metabolizable methionine (mMet).

**Forms:** Dry and liquid **Dry Particle Size:** ~ 310 μm

**Contains:** 84% HMTBa 2-hydroxy-4 (methylthio)

butanoic acid

Pelletable: Yes

Packaging:

**Dry** 22.5-kg bags and 600-kg totes

Liquid 1,200-kg IBC totes

Density:

**Dry** 0.4 – 0.6 g/cm³ **Liquid** 1.23 at 25°C **Liquid Viscosity:** 105 cSt

# Contact us today!





