



Smartamine® M

Quality Standard

REF: 203 - 800 PF 401 (22/05/2014)

1. Description

Smartamine M is Adisseo's rumen-stable, abomasum-dispersible methionine product for ruminants. It is produced using a unique patented process.

Smartamine M contains:

- a core of concentrated methionine,
- a pH-sensitive coating.

This specifically-designed coating ensures that the methionine is perfectly protected in the rumen and fully released in the abomasum. The methionine is thus made available in the intestine. There it is absorbed and can be used by the animal.

2. Composition

DL-methionine, technically pure: CAS n° [59-51-8]

Chemical formula: $\text{CH}_3\text{-S-CH}_2\text{-CH}_2\text{-CH(NH}_2\text{)-COOH}$

Patented pH-sensitive coating, containing copolymer poly(2-vinylpyridine-co-styrene)

3. Specifications

Appearance	beadlets
Color	white to gray
DL-methionine content	min. 74%
Copolymer poly (2-vinylpyridine-co-styrene)	max. 3%
Protection in vitro	min. 90%
Release in vitro	min. 90%

4. Duration of guarantee

24 months from date of manufacture. Keep in original unopened packaging stored well closed in a cool dry place.

5. Physical and chemical properties

This data, which results from careful tests on representative samples, is provided for information purposes only and does not in any way constitute a guarantee.

Particle size	
. > 2.5 mm	5% max.
. < 1.4 mm	5% max.
Apparent density	
. non tapped	approx. 0.75 g/cm ³
. tapped	approx. 0.80 g/cm ³
Humidity	approx. 0.5%
Number of particles per gram	approx. 150

6. Packaging

25 kgs bags (1000 kgs pallet). 500 kgs big bags (500 kgs pallet).

7. Use

- EU:

DL-methionine protected approved in the EU under n° 3c303 _REGULATION (EU) No 469/2013 of 22 May 2013, in premixtures or in compound feeds, for all ruminants.

- United States: FDA – 21 CFR – Part 573

Beef cattle: Federal Register, March 5, 1992.

Dairy cows: Federal Register, March 21, 1996.

Smartamine M is also authorized in many other countries.

8. Methods of analysis

Internal Method, Reference R710. Following destruction of the coating by a strong acid, methionine content is measured by iodometric titration of its sulfur.

Internal Method, Reference R702. Degree of protection (centesimal fraction of non-released methionine, after the product has been immersed for 24 hours in a 40°C, pH6 buffered solution).

Internal Method, Reference R704. Degree of release (centesimal fraction of methionine dissolved from the product after a 2 hour immersion in a 40°C, pH2 buffered solution).

9. Safety

Product MSDS (Material Safety Data Sheet) available on www.quickfds.com. Register on www.quickfds.com to receive automatic updates.

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