



# MetaSmart® Dry

Quality Standard

REF: 201 - 800 PF 422. V1 (17/12/2013)

## 1. Description

MetaSmart Dry is a powder source of metabolizable methionine for ruminants. It is the isopropyl ester of the HMB (2-hydroxy-4-methyl (thio) butanoic acid), also known as HMBi, adsorbed onto a silicon dioxide carrier.

## 2. Composition

HMBi (isopropyl ester of 2-hydroxy-4-methyl (thio) butanoic acid): CAS n° [57296-04-5]

Chemical formula:  $\text{CH}_3\text{S}-(\text{CH}_2)_2-\text{CH}(\text{OH})-\text{COO}-\text{CH}-(\text{CH}_3)_2$

Carrier: silica, CAS n° [7631-86-9].

Chemical formula:  $10 \text{SiO}_2 \cdot \text{H}_2\text{O}$

## 3. Specifications

Appearance	powder
Color	white to beige
HMBi monomer content	min. 57%
Water content	max. 4%

## 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	
. median diameter	approx. 300 µm
. diameter < 125 µm	5% max.
. diameter > 500 µm	10% max.
Apparent density	
. non tapped	approx. 0.75 g/cm <sup>3</sup>
. tapped	approx. 0.80 g/cm <sup>3</sup>
Flowability	free-flowing powder (cellular ring assay index > 15)

## 6. Packaging

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

## 7. Use

Exclusively for animal nutrition, for ruminants nutrition.

• EU:

. HMBi approved in the EU under n° 3c309 \_REGULATION (EU) No 469/2013 of 22 May 2013, in premixtures or in compound feeds, for all ruminants.

. Silica: Regulation 1831/2003/EC.

• United States:

. HMBi: FDA non objection letter, Feb. 2004

. Silica: AAFCO – Feed ingredient definition

## 8. Methods of analysis

Internal method, reference: Z 047  
Dosage by HPLC/UV.

## 9. Safety

Product MSDS (Material Safety Data Sheet) available on [www.quickfds.com](http://www.quickfds.com). Register on [www.quickfds.com](http://www.quickfds.com) to receive automatic updates.

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