

# MetaSmart<sup>®</sup> Dry

## Technical Information Sheet



## 1. Description

MetaSmart<sup>®</sup> Dry is a powder source of metabolizable methionine for dairy cows.

It is a free-flowing, cream to beige-colored powder, consisting of MetaSmart<sup>®</sup> - the isopropyl ester of the hydroxylated analogue of methionine also known as HMBi – adsorbed onto a silicon dioxide carrier.

This product is exclusively for use in the manufacture of cattle feed products.

## 2. Composition

\* HMBi (Isopropyl ester of 2-hydroxy-4-methylthiobutanoic acid):

CAS number [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 : silicon dioxide, CAS number [7631-86-9]

Chemical formula:  $10 \text{SiO}_2 \cdot 1\text{H}_2\text{O}$

## 3. Specifications

Appearance	<b>Free-flowing powder</b>
Color	<b>Cream to beige</b>
HMBi monomer	<b>57% minimum</b>
Water content	<b>4% maximum</b>

## 4. Typical Analysis \*

Particle size distribution

- median diameter - Approximately 300 $\mu\text{m}$
- below 125 $\mu\text{m}$  - 5% Maximum
- above 500 $\mu\text{m}$  - 10% Maximum

Weight / volume

- non-compressed - Approx. 0.75 g/cm<sup>3</sup>
- compressed - Approx. 0.80 g/cm<sup>3</sup>

Flowability

Free-flowing powder (cellular ring assay index >15)

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

## 5. Duration of Guarantee

24 months from date of manufacture in original unopened packaging, stored in a cool dry place

## 6. Packaging

25 kg net bags

## 7. Utilization

Exclusively for animal nutrition, for incorporation into cattle feed

Authorized for use in the US by letter of non objection obtained from FDA dated February 24, 2004

Authorized for use in Canada by Registration Certificate No. 580442 dated September 27,2006

## 8. Method of Analysis

Internal method, reference number Z 045

Dosage by HPLC/UV.

## 9. Safety Information

Reference: Material safety data sheet for MetaSmart®

## 10. Nutritional Specifications

MetaSmart® Dry provides 222 g/kg of metabolizable methionine and 222 g/kg of rumen available HMB. Suggested input values for CPM Dairy and NRC 2001 are as follows:

NRC 2001		CPM Dairy	
Dry Matter	96	Dry Matter	95
Crude Protein	51	Crude Protein	46
A	50	Soluble Protein	100
B	0	Methionine, % of RUP	100
C	50	Rates:	
Methionine, % of CP	100	Protein A	10,000
RUP digestibility	100	Protein B1, B2, B3 (% / hour)	0
		Digestibility of A, B1, B2, B3 %	50

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Smartamine®

For more information, visit our website [www.adisseo.com](http://www.adisseo.com)

One Point Royal | 4400 North Point Pkwy. / Suite 275 | Alpharetta, GA 30022  
US - Tel: 678.339.1500 or 800.727.1019 | Fax: 678.339.1600  
Canada - Tel: 905.659.9555 or 800.387.2123 | Fax: 888.821.7726

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