



**College ter Beoordeling van Geneesmiddelen / Medicines Evaluation Board**

**Graadt van Roggenweg 500  
3531 AH Utrecht  
The Netherlands**

**DECENTRALISED PROCEDURE**

**PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY  
MEDICINAL PRODUCT**

**Solvidine 200 mg/ml, solution for injection for horses**

**Date: 1 February 2017**

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## **MODULE 1**

### **PRODUCT SUMMARY**

Dutch Registration number	Reg NL 118928
EU Procedure number	NL/V/0208/001/DC
Name, strength and pharmaceutical form	Solvidine 200 mg/ml, solution for injection for horses
Applicant	Le Vet Beheer Wilgenweg 7 3421 TV Oudewater The Netherlands
Active substance(s)	acetylcysteine
ATC Vetcode	QR05CB01
Target species	Horses
Indication for use	Reduction of viscosity of the tracheobronchial secretion in the supportive treatment of chronic broncho-pulmonary diseases accompanied by abnormal secretion and mucostasis in the horse.

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## **MODULE 2**

The Summary of Product Characteristics (SPC) for this product is available on the website:

<http://mri.medagencies.org/veterinary/>

## MODULE 3

### PUBLIC ASSESSMENT REPORT

Legal basis of original application	Generic application in accordance with Article 13(1) of Directive 2001/82/EC as amended.
Date of completion of the original Decentralised procedure	20 January 2017
Concerned Member States for original procedure	AT, CZ, DE, DK, FR, HU, IT, NO, PL, RO, SE, SK

#### I. SCIENTIFIC OVERVIEW

Solvidine 200 mg/ml solution for injection for horses is produced and controlled using validated methods and tests, which ensure the consistency of the product released on the market.

It has been shown that the product can be safely used in the target species; the slight reactions observed are indicated in the SPC.

Solvidine 200 mg/ml solution for injection for horses is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended.

Suitable warnings and precautions are indicated in the SPC.

The efficacy of the product was demonstrated according to the claims made in the SPC.

The overall risk/benefit analysis is in favour of granting a marketing authorisation.

The safety and efficacy aspects of Solvidine 200 mg/ml solution for injection for horses are based on bioequivalence with the Reference product Equimucil 200 mg/ml solution for injection (ACME s.r.l. Italy) with Marketing Authorisation numbers: AIC n° 101001030, AIC n° 101001016.

Warnings statements and precautions are adopted from the reference product.

Additional statements have been added, based on increased knowledge and the current state of science. Adverse events, warnings and contraindications are indicated in the SPC.

#### II. QUALITY ASPECTS

##### A. QUALITATIVE AND QUANTITATIVE PARTICULARS

The product contains 200 mg/ml acetylcysteine and the following excipients: benzyl alcohol, sodium hydroxide and water for injection. Hydrochloric acid and sodium hydroxide are used for pH adjustment.

The product is packed in clear type I glass bottles of 50, 100 and 250 ml, fitted with grey fluorinated polymer coated bromobutyl rubber stoppers and aluminium caps. The glass vials and stoppers are in conformity with the Ph.Eur. requirements

The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines.

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## **B. DESCRIPTION OF THE MANUFACTURING METHOD**

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site.

The product is manufactured using conventional manufacturing techniques. Process validation results for two 300 L commercial batches, including all fill volumes, have been provided.

The tests performed during production are described.

## **C. CONTROL OF STARTING MATERIALS**

The active substance acetylcysteine is an established active substance described in the European Pharmacopoeia. The active substance is manufactured in accordance with the principles of good manufacturing practice.

The active substance specification is considered adequate to control the quality of the material. Batch analytical data demonstrating compliance with this specification have been provided.

The excipients are in conformity with Ph.Eur. requirements.

The glass vials and stoppers are in conformity with the Ph.Eur. requirements.

No ingredient is within the scope of the TSE Guideline present or used in the manufacture of this product.

## **D. CONTROL TESTS DURING THE MANUFACTURING PROCESS**

Not applicable.

## **E. CONTROL TESTS ON THE FINISHED PRODUCT**

The finished product specification controls the relevant parameters for the pharmaceutical form. The tests in the specification, and their limits, have been mostly justified and are considered appropriate to adequately control the quality of the product.

Satisfactory validation data for the analytical methods have been provided.

Batch analytical data from the proposed production site has been provided demonstrating compliance with the specification.

## **F. STABILITY**

The retest period of the active substance is indicated on the CEP of each supplier. Stability data on the finished product have been provided in accordance with applicable European guidelines, demonstrating a provisional shelf life of 24 months without specific storage conditions.

The claim of 28 days stability after broaching has been justified

## **G. OTHER INFORMATION**

None

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### **III. SAFETY AND RESIDUES ASSESSMENT (PHARMACO-TOXICOLOGICAL)**

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated (identical composition), results of toxicological, pharmacological and clinical tests are not required.

Warnings and precautions as listed on the product literature are the same as those of the reference product and are adequate to ensure safety of the product to users / the environment / consumers. Additional statements have been added, based on increased knowledge and the current state of science. Adverse events, warnings and contraindications are indicated in the SPC.

#### ***III.A Safety Testing***

##### ***Studies of Other Effects***

The application is made in accordance with Article 13 of the Directive 2001/82/EC, as amended. Bioequivalence with the reference product has been established (identical composition). Therefore, the applicant is not required to submit results of toxicological, pharmacological and clinical tests. With the exception of "Observations in humans" no additional data are provided in this generic application.

##### Active substance

N-acetyl-L-cysteine (NAC) is the acetyl derivative of the amino acid L-cysteine. The compound possesses mucolytic activity and is intended for treatment of abnormal, sticky or thick mucus secretions in various lung problems.

NAC has been and still is used – on a wide scale in humans, especially as an adjunct in the treatment of chronic respiratory diseases. NAC is of low toxicity in both animals and humans.

##### Excipients

The excipients of Acetylcysteine 200 mg/ml solution for injection for horses are all standard excipients and frequently used in veterinary medicine and considered safe in the concentrations used in the formulation.

##### ***User Safety***

Being a generic procedure the applicant refers to the reference product for information on this section.

Additionally, the applicant has provided a user safety assessment in compliance with the relevant guideline. Combined with increased knowledge and the current state of science, warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product.

##### ***Ecotoxicity***

The applicant provided a first phase environmental risk assessment in compliance with the relevant guideline which showed that no further assessment is required.

The environmental risk assessment can stop in Phase I because this product is intended for use in horses, in individual animals, and a Phase II assessment is not deemed necessary.

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The product is not expected to pose an unacceptable risk for the environment when used according to the SPC.

### **III.B Residues documentation**

#### **Residue Studies**

Being a generic application submitted according to Article 13(1) of Directive 2001/82/EC as amended and bioequivalence with the reference product has been established, results of residue studies are not required.

#### **MRLs**

Active substance is listed in Annex II of Commission Regulation (EU) no 37/2010, List of substances not necessary to establish a maximum residue limit.

#### **Withdrawal Periods**

The withdrawal period of Solvidine 200 mg/ml solution is identical to the withdrawal period of the reference product EQUIMUCIL® INIETTABILE (ACME s.r.l. Italy).

Based on the data provided above, a withdrawal period of zero days is justified.

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#### **IV. CLINICAL ASSESSMENT (EFFICACY)**

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated, efficacy studies are not required. The efficacy claims for this product are equivalent to those of the reference product.

##### ***Tolerance in the Target Species of Animals***

Additionally to the above, based on increased knowledge and the current state of science, warning statements and precautions have been added to the product literature ensuring safety to the target animals. Adverse events, warnings and contraindications are indicated in the SPC.

##### ***Resistance***

As this is a generic application according to Article 13, and bioequivalence with a reference product has been demonstrated, results of toxicological and pharmacological and clinical tests are not required. However, the SPC and Product Literature are updated according to the Revised Guideline on the SPC for Antimicrobial Products (EMA/CVMP/SAGAM/383441/2005).

#### **V. OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT**

The data submitted in the dossier demonstrate that when Solvidine 200 mg/ml solution is used in accordance with the Summary of Product Characteristics, the risk benefit profile for the target species is favourable and the quality and safety of Solvidine 200 mg/ml solution for humans and the environment is acceptable.