

Manufacturer's Batch Protocol

Product: Bovipast RSP Vakcina A.U.V.

Batch: A098A01

MEMBER STATE SPECIFIC INFORMATION

Member state: **HUNGARY**

Antigen containing component:

Trade name: **Bovipast RSP Vakcina A.U.V.**

Marketing authorisation number:

Target species: **Cattle**

Total number of containers in
this batch: **10 856**

Number of containers the release
is applied for: **10 856**

Number of doses per container: **10**

Number of samples for the
competent authority: **-**

Date of expiry: **Mar-2016**

Name and address of Marketing

Authorisation Holder: **Intervet International B.V.
Wim de Körverstraat 35
5831 AN Boxmeer
THE NETHERLANDS,
represented by the local
company**

18-Feb-2015/cc

1103585318/10



Manufacturer's Batch Protocol

Product: Bovipast RSP Vakcina A.U.V. Batch: A098A01

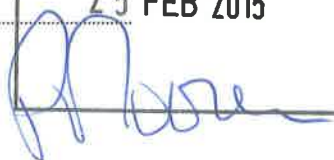
SUMMARY INFORMATION ON THE FINAL BATCH OF FINISHED PRODUCT

Common name of product:	Bovine respiratory syncytial virus, Para-influenza virus and Mannheimia haemolytica vaccine (inactivated) for cattle.
Batch number of finished product:	A098A01
Batch number of final bulk:	A098
Pharmaceutical form of finished product:	Suspension for injection
Type of final container:	Hydrolytical class type I glass
Date of start of period of validity:	29-Sep-2014
Storage temperature:	2-8 °C
Name and address of manufacturer:	Intervet International B.V. Wim de Körverstraat 35 5831 AN BOXMEER NEDERLAND
Name and address of the batch release site:	Intervet International B.V. Wim de Körverstraat 35 5831 AN BOXMEER NEDERLAND

CERTIFICATION BY THE MANUFACTURER

I herewith certify that concerned batch was manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirement and that all measures have been taken to demonstrate compliance with Directive 2001/82/EC as amended.

Name:
Function:
Date:
Signature:

<p>P.G. Mooren Qualified Person</p> <p>25 FEB 2015</p> 
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Manufacturer's Batch Protocol

Product: Bovipast RSP Vakcina A.U.V. Batch: A098A01

FINAL BATCH TESTING (FINISHED PRODUCT)

Date on Date off Test results

Sterility (1.8)

23-Sep-2014 14-Oct-2014 Tested according to Ph. Eur. 0062/Ph.Eur.2.6.1
Result: No growth
Threshold: No growth
Conclusion: Passed

Inactivation BRSV

12-Sep-2014 03-Oct-2014 Result: Inactivated
Threshold: Inactivated
Conclusion: Passed

Inactivation PI3

12-Sep-2014 03-Oct-2014 Result: Inactivated
Threshold: Inactivated
Conclusion: Passed

Inactivation M. haemolytica

19-Sep-2014 10-Oct-2014 Result: Inactivated
Threshold: Inactivated
Conclusion: Passed

Potency using rabbits (1.6)

29-Sep-2014 30-Oct-2014 Result: Conform
Threshold: Conform
Conclusion: Passed

BRSV antibody

Single result: 25 / 14 / 29 / 50 / 14 / 20 / 192 / 166 / 10 / 83
Average: 60
Result standard: 17
Threshold: Antibody level not sign. lower than std.
Conclusion: Passed

Manufacturer's Batch Protocol

Product: Bovipast RSP Vakcina A.U.V. Batch: A098A01

FINAL BATCH TESTING (FINISHED PRODUCT)

Date on Date off Test results

Identity BRSV

Result: Identity conform
Threshold: Identity conform
Conclusion: Passed

PI3 antibody

Single result: 100 / 200 / 40 / 20 / 40 / 60 / 40 / 40 / 50 / 70
Average: 66
Result standard: 50
Threshold: Antibody level not sign. lower than std.
Conclusion: Passed

Identity PI3

Result: Identity conform
Threshold: Identity conform
Conclusion: Passed

M. haemolytica antibody

Single result: 54.32 / 66.40 / 40.99 / 44.91 / 57.23 / 76.68 / 45.78 / 48.81 / 63.84 / 70.57 %
Average: 57 %
Threshold: AB levels not sign. lower than passmark(37.1%)
Conclusion: Passed

M. haemolytica quantification (1.9)

Single result: 0.387 / 0.392 / 0.426 / 0.403 / 0.403 / 0.447
Average: 0.410
1:5 diluted standard single result: 0.184 / 0.179 / 0.182 / 0.166 / 0.199 / 0.182
Average 1:5 diluted standard: 0.182
Threshold: O.D. significantly > 1:5 diluted std.
Conclusion: Passed

Manufacturer's Batch Protocol

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FINAL BATCH TESTING (FINISHED PRODUCT)

<u>Date on</u>	<u>Date off</u>	<u>Test results</u>
		<u>Aluminium (1.1)</u>
09-Oct-2014	09-Oct-2014	Tested according to Ph. Eur. 2.5.13 Result: 3 mg/mL Threshold: 2 – 3 mg/mL Conclusion: Passed
		<u>Formaldehyde (1.2)</u>
13-Oct-2014	13-Oct-2014	Result: 0.15 mg/mL Threshold: <= 0.50 mg/mL Conclusion: Passed
		<u>Sodium timerfonate (1.3)</u>
14-Oct-2014	14-Oct-2014	Result: 0.0099 mg/mL Threshold: 0.0085 – 0.0115 mg/mL Conclusion: Passed
		<u>pH (1.4)</u>
03-Oct-2014	03-Oct-2014	Tested according to Ph. Eur. 2.2.3 Result: 7.7 Threshold: 6.9 – 7.9 Conclusion: Passed
		<u>Endotoxin (1.7)</u>
14-Oct-2014	14-Oct-2014	Result: 3.3×10^4 IU/dose Threshold: <= 2.5×10^5 IU/dose Conclusion: Passed



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PRODUCTION INFORMATION

<u>Component</u>	<u>Batch</u>	<u>Site(s) of manufacturing</u>
Antigen BRSV	See composition table	Intervet, Salamanca, Spain
Antigen PI3	See composition table	Intervet, Salamanca, Spain
Antigen M. haemolytica	See composition table	Intervet, Milton Keynes, UK
Bulk vaccin	See composition table	Intervet, Salamanca, Spain
Filled product	see filling	Intervet, Boxmeer, the Netherlands

STARTING MATERIALS:

Virus seed lots:

Master seed material: **BRSV**
MS-batch number: **Lot no. 2, 19.06.1995**
Date of last testing: **27-JUN-1995**

Working seed material: **BRSV**
WS-batch number: **30H10**
Date of last testing: **31-Jan-2011**

Master seed material: **PI3**
MS-batch number: **Lot no. 2, 13.06.1995**
Date of last testing: **27-JUN-1995**

Working seed material: **PI3**
WS-batch number: **12E10**
Date of last testing: **24-Jan-2011**

Bacterial seed lots:

Master seed material: **M. haemolytica**
MS-batch number: **Lot no. S1131/95M, 12-01-1996**
Date of last testing: **26-JAN-1996**

Working seed material: **M. haemolytica**
WS-batch number: **08/10/04/W**
Date of last testing: **26-Jun-2008**

Permanent cell line:

Master cell seed: **MDBK cell line**
MCS-batch number: **6th pas. BW, 25-04-1994**
Date of last testing: **18-JAN-1996**

Manufacturer's Batch Protocol

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INTERMEDIATE STAGES OF PRODUCTION

PRODUCTION OF BRSV COMPONENT:

<u>Production step</u>	<u>Start</u>	<u>End</u>	<u>Volume</u>
Batch SBRS14004			
Seed:	27-Mar-2014	27-Mar-2014	2166.00 m ^l
Harvest:	04-Apr-2014	04-Apr-2014	774.50 kg
Inactivation:	04-Apr-2014	08-Apr-2014	781.70 kg
Batch SBRS140051			
Seed:	09-Jun-2014	09-Jun-2014	1014.00 m ^l
Harvest:	17-Jun-2014	17-Jun-2014	349.80 kg
Inactivation:	17-Jun-2014	21-Jun-2014	353.10 kg

PRODUCTION OF PI3 COMPONENT:

<u>Production step</u>	<u>Start</u>	<u>End</u>	<u>Volume</u>
Batch SPI314004			
Seed:	12-Feb-2014	12-Feb-2014	3067.00 m ^l
Harvest:	18-Feb-2014	18-Feb-2014	897.00 kg
Inactivation:	18-Feb-2014	18-Feb-2014	905.40 kg

PRODUCTION OF M. HAEMOLYTICA COMPONENT:

<u>Production step</u>	<u>Start</u>	<u>End</u>	<u>Volume</u>
Batch LMHB002801			
Seed:	05-Feb-2014	05-Feb-2014	150 L
Harvest:	05-Feb-2014	05-Feb-2014	3000 L
Inactivation:	05-Feb-2014	05-Feb-2014	3000 L
Batch LMHB002802			
Seed:	05-Feb-2014	05-Feb-2014	150 L
Harvest:	05-Feb-2014	05-Feb-2014	3000 L
Inactivation:	05-Feb-2014	05-Feb-2014	3000 L

CREATION OF THE FINISHED PRODUCT

BLENDING OF FINAL BULK:

Batch number: **D511**
Start date: **28-Aug-2014**
End date: **28-Aug-2014**
Total volume: **3000.00 kg**

Manufacturer's Batch Protocol

Product: Bovipast RSP Vakcina A.U.V.

Batch: A098A01

COMPOSITION OF THE FINAL BULK

Components	Batch no.	Total units
BRSV	SBRS14004 SBRS140051	751.00 kg
Pi3	SPI314004	601.00 kg
M. haemolytica	LMHB002801 LMHB002802	27.10 kg
Adjuvant	SAL14003 SMS1412304	764.88 kg
Excipient	SMS14108 SMS1412405	856.02 kg
	SMS1412402 BMGM306931 BMGM218881	

FILLING

Batch number of final bulk: **A098**
Final batch number: **A098A**
Start date: **16-Sep-2014**
End date: **16-Sep-2014**
Filled containers: **10 856**
Volume filled: **50 ml**

IN PROCESS CONTROLS

In process controls BRSV antigen:

Test	Start	End	Result	Thresholds	Conclusion
Batch SBRS14004					
Sterility (before inac)	11-Apr-2014	25-Apr-2014	No growth	No growth	Passed
Antigen content (TCID50)	14-Apr-2014	24-Apr-2014	5.7*	>= 5.4*	Passed
Identity	14-Apr-2014	24-Apr-2014	Conform	Conform	Passed
Sterility (after inac)	17-Apr-2014	01-May-2014	No growth	No growth	Passed
Freedom from live virus	25-Apr-2014	23-May-2014	No CPE	No CPE	Passed
pH	08-Apr-2014	08-Apr-2014	7.5	7.2 - 8.2	Passed
* Log10/ml					
Batch SBRS140051					
Sterility (before inac)	20-Jun-2014	04-Jul-2014	No growth	No growth	Passed
Antigen content (TCID50)	23-Jun-2014	03-Jul-2014	6.0*	>= 5.4*	Passed
Identity	23-Jun-2014	03-Jul-2014	Conform	Conform	Passed
Sterility (after inac)	26-Jun-2014	10-Jul-2014	No growth	No growth	Passed
Freedom from live virus	27-Jun-2014	18-Jul-2014	No CPE	No CPE	Passed
pH	23-Jun-2014	23-Jun-2014	7.5	7.2 - 8.2	Passed
* Log10/ml					



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Batch: A098A01

In process controls PI3 antigen:

<u>Test</u>	<u>Start</u>	<u>End</u>	<u>Result</u>	<u>Thresholds</u>	<u>Conclusion</u>
Batch SPI314004					
Sterility (before inac)	19-Feb-2014	05-Mar-2014	No growth	No growth	Passed
Antigen content (TCID50)	24-Feb-2014	06-Mar-2014	7.6*	>= 7.3*	Passed
Identity	24-Feb-2014	06-Mar-2014	Conform	Conform	Passed
Sterility (after inac)	25-Feb-2014	11-Mar-2014	No growth	No growth	Passed
Freedom from live virus	21-Feb-2014	14-Mar-2014	No CPE	No CPE	Passed
pH	19-Feb-2014	19-Feb-2014	7.5	7.2 - 8.2	Passed
* Log10/ml					

In process controls M. haemolytica antigen:

<u>Test</u>	<u>Start</u>	<u>End</u>	<u>Result</u>	<u>Thresholds</u>	<u>Conclusion</u>
Batch LMHB002801					
Purity reconstituted WS	03-Feb-2014	04-Feb-2014	Pure	Pure	Passed
Purity primary inoculum	04-Feb-2014	05-Feb-2014	Pure	Pure	Passed
Identity primary inoculum	06-Feb-2014	06-Feb-2014	Conform	Conform	Passed
Purity secondary inoculum	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Purity fermentor inoculum	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Purity fermentor culture	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Iron regulated protein	13-Feb-2014	13-Feb-2014	Present	Present	Passed
Inactivation	06-Feb-2014	27-Feb-2014	No growth	No growth	Passed
Sterility	11-Feb-2014	25-Feb-2014	No growth	No growth	Passed
Formaldehyde	10-Feb-2014	10-Feb-2014	1 mg/ml	< 2 mg/ml	Passed
Antigen content	14-Mar-2014	14-Mar-2014	1.80 x 10 ¹¹	* n.a.	Passed
pH	10-Feb-2014	10-Feb-2014	6.7	6.3-7.2	Passed
Specific gravity	10-Feb-2014	10-Feb-2014	1032	N.a.	Passed
* cells/ml					

Batch LMHB002802					
Purity reconstituted WS	03-Feb-2014	04-Feb-2014	Pure	Pure	Passed
Purity primary inoculum	04-Feb-2014	05-Feb-2014	Pure	Pure	Passed
Identity primary inoculum	06-Feb-2014	06-Feb-2014	Conform	Conform	Passed
Purity secondary inoculum	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Purity fermentor inoculum	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Purity fermentor culture	05-Feb-2014	06-Feb-2014	Pure	Pure	Passed
Iron regulated protein	13-Feb-2014	13-Feb-2014	Present	Present	Passed
Inactivation	06-Feb-2014	27-Feb-2014	No growth	No growth	Passed
Sterility	11-Feb-2014	25-Feb-2014	No growth	No growth	Passed
Formaldehyde	10-Feb-2014	10-Feb-2014	1 mg/ml	< 2 mg/ml	Passed
Antigen content	14-Mar-2014	14-Mar-2014	2.23 x 10 ¹¹	* n.a.	Passed
pH	10-Feb-2014	10-Feb-2014	6.7	6.3-7.2	Passed
Specific gravity	10-Feb-2014	10-Feb-2014	1033	N.a.	Passed
* cells/ml					



MSD
Animal Health

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msd-animal-health.com

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Product: Bovipast RSP Vakcina A.U.V.

Batch: A098A01

In process controls final product:

<u>Test</u>	<u>Start</u>	<u>End</u>	<u>Result</u>	<u>Thresholds</u>	<u>Conclusion</u>
Filling volume	16-Sep-2014	16-Sep-2014	52 ml	≥ 51 ml	Passed