

Certificate of Conformity / release notification


Certification by qualified person of Bilthoven Biologicals B.V. taking the overall responsibility for production and control of the medicinal product.

Name	Poliomyelitisvaccin
Marketing authorization no.	RVG 17642
Batch no.	1846001A
Manufacturing date	24-Oct-2018
Expiry date	24-Oct-2021

I herewith certify that the above indicated batch of medicinal product has been manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements.

This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate compliance with Directive 2001/83EC and amending Directives 2003/63/EC and 2004/27/EC.

- The batch has been released for distribution on the Unicef market
- The batch has been released for distribution to a third party manufacturer in

Name	drs. M.A. van Peyma - Hoekzema
Function	Qualified Person
Date	28-Jan-2019
Signature	

Summary protocol IPV vaccine1846001

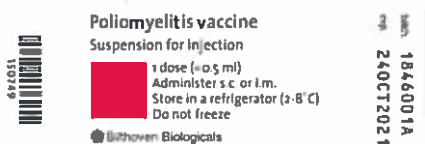
Summary protocol / Certificate of Analysis

Manufacturer	
Name manufacturer	Bilthoven Biologicals B.V.
Address	P.O. Box 457 3720 AL Bilthoven The Netherlands
Proprietary name	Inactivated poliomyelitis vaccine (IPV)
Trade name	Poliomyelitis vaccin
Marketing authorization no ^o	RVG-17642

Note: all dates are represented as dd-mm-yyyy

Final lot(s)					
Volume of 1 human dose				0.5 ml	
Batch number of final bulk				1841000285	
Date of manufacture of final bulk				18-10-2018	
Lot no.	No. of vials filled	No. of vials packed	Volume filled (ml)	Date of manufacture	Expiry date <i>storage at 5±3 °C</i>
1846001	60465	n.a.	0.6	24-10-2018	24-10-2021
1846001A		25277	0.6	24-10-2018	24-10-2021

Labels appearing on the vials:



Summary protocol IPV vaccine 1846001

TSE compliance

Materials derived from ruminants used in the manufacture of this batch:

	n° certificate	date of submission dossier to competent authority
Donor bovine serum	CEP 2000-171 and/or CEP 2000-341 and/or CEP 2001-452	-
Trypsine	Not applicable (contains only lactose)	-

Certification

Certification by qualified person taking the overall responsibility for production and control of the inactivated poliomyelitis vaccine.

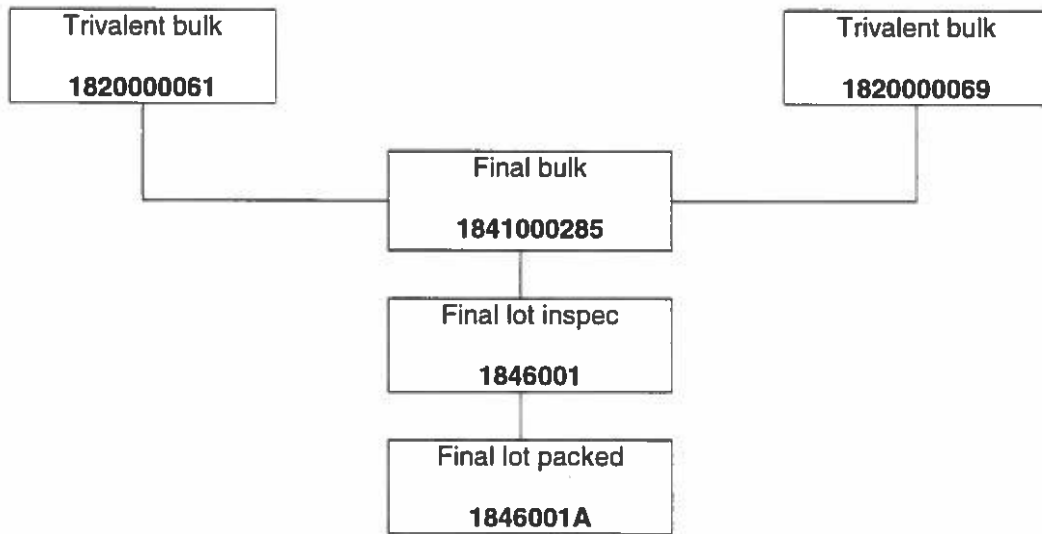
I herewith certify that IPV batch N° **1846001A** was manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements. This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate compliance with Commission Directive 2001/83/EC and amending Directives 2003/63/EC and 2004/27/EC.

Qualified Person: Drs. L.C. Sundermann / Drs. M.A. van Peyma / Drs. T. Lammerink

Signature: 

Date of issue: 2019-01-24

Production Flow Sheet1846001



IPV vaccine, final lot.....1846001

Final lot	Result or data	Specification
Corresponding final bulk	1841000285	
Filling-site	Bilthoven	
Date of filling (=manufacturing date)	24-10-2018	
Batch number of final lot	1846001	
Volume filled	0.5 ml	
Expiry date, storage at 5 ± 3°C	24-10-2021	max. 36 months after date of potency test
Result or data		
Specification		
D-antigen content, confirmation of identity		
method	Ph. Eur. 2.7.1	
date	03-12-2018	
result	46 DU/hd	≥ 30 DU/hd
type 1	8 DU/hd	≥ 6 DU/hd
type 2	36 DU/hd	≥ 24 DU/hd
type 3		
Appearance	Clear orange-red liquid	clear orange-red liquid
Test for sterility		
method	Ph. Eur. 2.6.1	
media	thioglycollate / TSB	
number of vials tested	40	
date test on	30-10-2018	
date test off	13-11-2018	
result	no growth observed	no growth of bacteria or fungi
Test for protein content		
method	Calculated from trivalent bulk value	
result	2.9 µg/ml	≤ 20 µg/ml
Test for endotoxins		
method	Ph. Eur. 2.6.14	
date of test	28-11-2018	
result	<1 IU/hd	≤ 5 IU/hd
Test for pH		
method	electrometric with glass electrode	
date	27-11-2018	
result	7.0	6.8 – 7.4
Test for extractable volume		
method	ANA-20073	
number of vials tested	5	
date test on	03-12-2018	
Result, mean of 5 vials	0.5 ml	≥ 0.5 ml

* hd = human dose

Remarks:

IPV vaccine, final bulk.....1841000285

Final bulk	Result or data	Specification		
Nominal composition				
poliomyelitis				
type 1	80 DU/ml			
type 2	16 DU/ml			
type 3	64 DU/ml			
Nature and concentration of preservatives				
formaldehyde	0.83 mmol/l			
2-phenoxyethanol	36.2 mmol/l			
Volume of human dose	0.5 ml			
Date of manufacture	18-10-2018			
Batch number of final bulk	1841000285			
Volume of final bulk	400 l			
Expiry date for final lot processing	18-10-2019	12 months after manufacturing date final bulk		
Expiry date of corresponding final lot, storage at 5 ± 3°C	24-10-2021	max. 36 months after date of potency test		
Storage in type 1 glass container or stainless steel container at 2-8°C				
Composition	Batch no.	Volume (l)	Concentration	Exp. date
IPV, trivalent bulk	1820000061	40	400 – 80 - 320	06-09-2020
IPV, trivalent bulk	1820000069	40	400 – 80 – 320	06-09-2020

	Result or data	Specification
Test for sterility		
method	Ph. Eur. 2.6.1	
media	thioglycollate / TSB	
volume inoculated	10 ml / 10 ml	
date test on	23-10-2018	
date test off	06-11-2018	
result	no growth observed	no growth of bacteria or fungi
Test for pH		
method	electrometric with glass electrode	
date	19-10-2018	
result	7.0	6.8 – 7.4
Test for formaldehyde		
method	HPLC	
date	22-10-2018	
result	0.9 mmol/l	0.7 – 1.0
Test for 2-phenoxyethanol		
method	HPLC	
date	22-10-2018	
result	35 mmol/l	31 – 42
Potency test poliomyelitis		
D-antigen content		
method	Ph. Eur. 2.7.1	
date	24-10-2018	
result		
type 1	92 DU/ml	≥ 60
type 2	17 DU/ml	≥ 12
type 3	67 DU/ml	≥ 48

Remarks:



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

EU Official Control Authority BATCH RELEASE CERTIFICATE

Finished Product

Examined under Article 114 of Directive 2001/83/EC as amended by Directive 2004/27/EC (Immunological Medical Products) and in accordance with the Administrative Procedure for Official Control Authority Batch Release within the EU.

Trade name	Poliomyelitisvaccin
Non-proprietary name	Poliomyelitis Vaccine (Inactivated)
Batch number appearing on package and other identification numbers associated with this batch	1846001
Type of container	vial
Total number of containers in this batch	60465
Number of doses per container	1
Date of start of period of validity	24-10-2018
Date of expiry	24-10-2021
Marketing authorisation number	RVG 17642
Name and address of manufacturer	Bilthoven Biologicals B.V. A. van Leeuwenhoeklaan 9-13 3721 MA Bilthoven The Netherlands
Name and address of market authorisation holder	Bilthoven Biologicals B.V. A.van Leeuwenhoeklaan 11 3721 MA Bilthoven The Netherlands

This batch has been examined using documented procedures which form part of a quality system accredited to the ISO/IEC 17025 standard.

The examination has been based on the review of the manufacturer's protocol and the appropriate control laboratory tests as indicated in the marketing authorization application.

This batch is in compliance with the specifications laid down in the relevant Ph. Eur. monographs and the above Marketing Authorisation and is released.

Certificate Number : **181596**

Date of issue : **18-12-2018**



Dr. B. de Vries
Centre for Health Protection, RIVM, Bilthoven



Certificate of Conformity / release notification

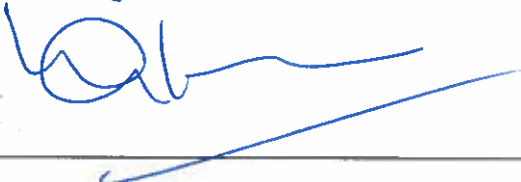
Certification by qualified person of Bilthoven Biologicals B.V. taking the overall responsibility for production and control of the medicinal product.

Name	Poliomyelitisvaccin
Marketing authorization no.	RVG 17642
Batch no.	1846002A
Manufacturing date	29-Oct-2018
Expiry date	24-Oct-2021

I herewith certify that the above indicated batch of medicinal product has been manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements.

This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate compliance with Directive 2001/83EC and amending Directives 2003/63/EC and 2004/27/EC.

- The batch has been released for distribution on the Unicef market
- The batch has been released for distribution to a third party manufacturer in

Name	drs. M.A. van Peyma - Hoekzema
Function	Qualified Person
Date	11-Jan-2019
Signature	

Summary protocol IPV vaccine1846002

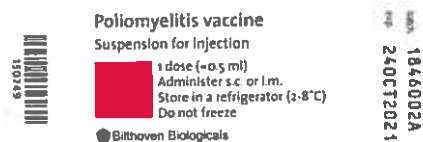
Summary protocol / Certificate of Analysis

Manufacturer	
Name manufacturer	Bilthoven Biologicals B.V.
Address	P.O. Box 457 3720 AL Bilthoven The Netherlands
Proprietary name	Inactivated poliomyelitis vaccine (IPV)
Trade name	Poliomyelitis vaccin
Marketing authorization no°	RVG-17642

Note: all dates are represented as dd-mm-yyyy

Final lot(s)					
Volume of 1 human dose	0.5 ml				
Batch number of final bulk	1841000285				
Date of manufacture of final bulk	18-10-2018				
Lot no.	No. of vials filled	No. of vials packed	Volume filled (ml)	Date of manufacture	Expiry date storage at 5±3 °C
1846002	60017	n.a.	0.6	29-10-2018	24-10-2021
1846002A		59805	0.6	29-10-2018	24-10-2021

Labels appearing on the vials:



Summary protocol IPV vaccine1846002

TSE compliance

Materials derived from ruminants used in the manufacture of this batch:

	n° certificate	date of submission dossier to competent authority
Donor bovine serum	CEP 2000-171 and/or CEP 2000-341 and/or CEP 2001-452	-
Trypsine	Not applicable (contains only lactose)	-

Certification

Certification by qualified person taking the overall responsibility for production and control of the inactivated poliomyelitis vaccine.

I herewith certify that IPV batch N° **1846002A** was manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements. This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate compliance with Commission Directive 2001/83/EC and amending Directives 2003/63/EC and 2004/27/EC.

Qualified Person: Drs. L.C. Sundermann / Drs. M.A. van Peyma / Drs. T. Lammerink

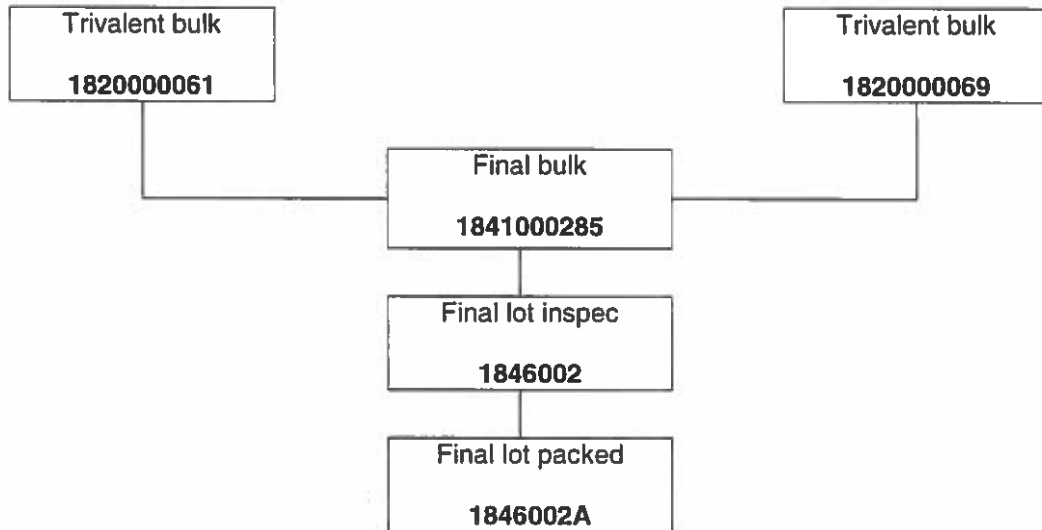
Signature:



Date of issue:



Production Flow Sheet1846002



IPV vaccine, final lot.....1846002

Final lot	Result or data	Specification
Corresponding final bulk	1841000285	
Filling-site	Bilthoven	
Date of filling (=manufacturing date)	29-10-2018	
Batch number of final lot	1846002	
Volume filled	0.5 ml	
Expiry date, storage at 5 ± 3°C	24-10-2021	max. 36 months after date of potency test
<hr/>		
	Result or data	Specification
D-antigen content, confirmation of identity		
method	Ph. Eur. 2.7.1	
date	03-12-2018	
result	45 DU/hd	≥ 30 DU/hd
type 1	8 DU/hd	≥ 6 DU/hd
type 2	36 DU/hd	≥ 24 DU/hd
type 3		
Appearance	Clear orange-red liquid	clear orange-red liquid
Test for sterility		
method	Ph. Eur. 2.6.1	
media	thioglycollate / TSB	
number of vials tested	40	
date test on	02-11-2018	
date test off	16-11-2018	
result	no growth observed	no growth of bacteria or fungi
Test for protein content		
method	Calculated from trivalent bulk value	
result	2.9 µg/ml	≤ 20 µg/ml
Test for endotoxins		
method	Ph. Eur. 2.6.14	
date of test	29-11-2018	
result	<1 IU/hd	≤ 5 IU/hd
Test for pH		
method	electrometric with glass electrode	
date	06-12-2018	
result	7.0	6.8 – 7.4
Test for extractable volume		
method	ANA-20073	
number of vials tested	5	
date test on	03-12-2018	
Result, mean of 5 vials	0.5 ml	≥ 0.5 ml

* hd = human dose

Remarks:

IPV vaccine, final bulk.....1841000285

Final bulk	Result or data	Specification		
Nominal composition				
poliomyelitis type 1	80 DU/ml			
type 2	16 DU/ml			
type 3	64 DU/ml			
Nature and concentration of preservatives				
formaldehyde	0.83 mmol/l			
2-phenoxyethanol	36.2 mmol/l			
Volume of human dose	0.5 ml			
Date of manufacture	18-10-2018			
Batch number of final bulk	1841000285			
Volume of final bulk	400 l			
Expiry date for final lot processing	18-10-2019	12 months after manufacturing date final bulk		
Expiry date of corresponding final lot, storage at 5 ± 3°C	24-10-2021	max. 36 months after date of potency test		
Storage in type 1 glass container or stainless steel container at 2-8°C				
Composition	Batch no.	Volume (l)	Concentration	Exp. date
IPV, trivalent bulk	1820000061	40	400 – 80 - 320	06-09-2020
IPV, trivalent bulk	1820000069	40	400 – 80 – 320	06-09-2020

	Result or data	Specification
Test for sterility		
method	Ph. Eur. 2.6.1	
media	thioglycollate / TSB	
volume inoculated	10 ml / 10 ml	
date test on	23-10-2018	
date test off	06-11-2018	
result	no growth observed	no growth of bacteria or fungi
Test for pH		
method	electrometric with glass electrode	
date	19-10-2018	
result	7.0	6.8 – 7.4
Test for formaldehyde		
method	HPLC	
date	22-10-2018	
result	0.9 mmol/l	0.7 – 1.0
Test for 2-phenoxyethanol		
method	HPLC	
date	22-10-2018	
result	35 mmol/l	31 – 42
Potency test poliomyelitis		
D-antigen content		
method	Ph. Eur. 2.7.1	
date	24-10-2018	
result	type 1	≥ 60
	type 2	≥ 12
	type 3	≥ 48

Remarks:



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport

EU Official Control Authority BATCH RELEASE CERTIFICATE

Finished Product

Examined under Article 114 of Directive 2001/83/EC as amended by Directive 2004/27/EC (Immunological Medical Products) and in accordance with the Administrative Procedure for Official Control Authority Batch Release within the EU.

Trade name	Poliomyelitisvaccin
Non-proprietary name	Poliomyelitis Vaccine (Inactivated)
Batch number appearing on package and other identification numbers associated with this batch	1846002
Type of container	vial
Total number of containers in this batch	60017
Number of doses per container	1
Date of start of period of validity	24-10-2018
Date of expiry	24-10-2021
Marketing authorisation number	RVG 17642
Name and address of manufacturer	Bilthoven Biologicals B.V. A. van Leeuwenhoeklaan 9-13 3721 MA Bilthoven The Netherlands
Name and address of market authorisation holder	Bilthoven Biologicals B.V. A. van Leeuwenhoeklaan 11 3721 MA Bilthoven The Netherlands

This batch has been examined using documented procedures which form part of a quality system accredited to the ISO/IEC 17025 standard.

The examination has been based on the review of the manufacturer's protocol and the appropriate control laboratory tests as indicated in the marketing authorization application.

This batch is in compliance with the specifications laid down in the relevant Ph. Eur. monographs and the above Marketing Authorisation and is released.

Certificate Number : **181602**

Date of issue : **18-12-2018**



Dr. B. de Vries
Centre for Health Protection, RIVM, Bilthoven





Health Care Inspectorate - Pharmaceutical Affairs and Medical Technology

CERTIFICATE NUMBER: *NL/H 17/1013375*

CERTIFICATE OF GMP COMPLIANCE OF A MANUFACTURER^{1, 2}

Part 1

Issued following an inspection in accordance with :

Art. 111(5) of Directive 2001/83/EC as amended

The competent authority of Netherlands confirms the following:

The manufacturer: *Bilthoven Biologicals B.V.*

Site address: *Antonie v Leeuwenhoekln 9 - 13, BILTHOVEN, 3721MA, Netherlands*

Has been inspected under the national inspection programme in accordance with Art. 40 of Directive 2001/83/EC transposed in the following national legislation:

Art. 100 of the Medicines Act

Is an active substance manufacturer that has been inspected in accordance with Art. 111(1) of Directive 2001/83/EC transposed in the following national legislation:

Art. 100 of the Medicines Act

From the knowledge gained during inspection of this manufacturer, the latest of which was conducted on *2017-03-14* , it is considered that it complies with :

- The principles and guidelines of Good Manufacturing Practice laid down in Directive 2003/94/EC³
- The principles of GMP for active substances³ referred to in Article 47 of Directive 2001/83/EC .

This certificate reflects the status of the manufacturing site at the time of the inspection noted above and should not be relied upon to reflect the compliance status if more than three years have elapsed since the date of that inspection. However, this period of validity may be reduced or extended using regulatory risk management principles by an entry in the Restrictions or Clarifying remarks field. This certificate is valid only when presented with all pages and both Parts 1 and 2. The authenticity of this certificate may be verified in EudraGMDP. If it does not appear, please contact the issuing authority.

¹ The certificate referred to in paragraph 111(5) of Directive 2001/83/EC and 80(5) of Directive 2001/82/EC, shall also be required for imports coming from third countries into a Member State.

² Guidance on the interpretation of this template can be found in the Help menu of EudraGMDP database.

³ These requirements fulfil the GMP recommendations of WHO.

or



Part 2

Human Medicinal Products

1 MANUFACTURING OPERATIONS

1.1	Sterile products
	<i>1.1.1 Aseptically prepared (processing operations for the following dosage forms)</i> 1.1.1.2 Lyophilisates 1.1.1.4 Small volume liquids
	<i>1.1.2 Terminally Sterilised (processing operations for the following dosage forms)</i> 1.1.2.3 Small volume liquids
	<i>1.1.3 Batch certification</i>
1.3	Biological medicinal products (list of product types)
	<i>1.3.1 Biological medicinal products (list of product types)</i> 1.3.1.2 Immunological products
	<i>1.3.2 Batch Certification (list of product types)</i> 1.3.2.2 Immunological products
1.5	Packaging
	<i>1.5.2 Secondary packing</i>
1.6	Quality control testing
	1.6.1 Microbiological: sterility 1.6.2 Microbiological: non-sterility 1.6.3 Chemical/Physical 1.6.4 Biological

2 IMPORTATION OF MEDICINAL PRODUCTS

2.2	Batch certification of imported medicinal products
	2.2.1 <i>Sterile products</i> 2.2.1.1 Aseptically prepared
	2.2.3 <i>Biological medicinal products</i> 2.2.3.5 Biotechnology products

✓



2017-04-24



Name and signature of the authorised person of the
Competent Authority of Netherlands

Dr. Annigje Rietveld
Health Care Inspectorate - Pharmaceutical Affairs and
Medical Technology
Tel: +31 88 1205000
Fax: +31 88 1205001

Issued as a true copy as specified in Section 49, subsection 3 of the Dutch Notaries Act by me, Mr. Frans Eduard van Beek LL.M., civil-law notary practising in the Municipality of De Bilt, the Netherlands.

Signed in Bilthoven, the Netherlands, on the eighteenth of May two thousand seventeen





Health Care Inspectorate - Pharmaceutical Affairs and Medical Technology

CERTIFICATE NUMBER: *NL/H/17/1013375B*

CERTIFICATE OF GMP COMPLIANCE OF A MANUFACTURER

Part 1

Issued following an inspection in accordance with :
Art. 111(5) of Directive 2001/83/EC as amended

The competent authority of Netherlands confirms the following:

The manufacturer: *Bilthoven Biologicals B.V.*

Site address: *Antonie van Leeuwenhoeklaan 9-13, BILTHOVEN, 3721MA, Netherlands*

Is an active substance manufacturer that has been inspected in accordance with Art. 111(1) of Directive 2001/83/EC transposed in the following national legislation:

Art. 100 of the Medicines Act

From the knowledge gained during inspection of this manufacturer, the latest of which was conducted on *2017-03-14* , it is considered that it complies with :

- The principles of GMP for active substances³ referred to in Article 47 of Directive 2001/83/EC .

This certificate reflects the status of the manufacturing site at the time of the inspection noted above and should not be relied upon to reflect the compliance status if more than three years have elapsed since the date of that inspection. However, this period of validity may be reduced or extended using regulatory risk management principles by an entry in the Restrictions or Clarifying remarks field. This certificate is valid only when presented with all pages and both Parts 1 and 2. The authenticity of this certificate may be verified in EudraGMDP. If it does not appear, please contact the issuing authority.

¹ The certificate referred to in paragraph 111(5) of Directive 2001/83/EC and 80(5) of Directive 2001/82/EC, shall also be required for imports coming from third countries into a Member State.

² Guidance on the interpretation of this template can be found in the Help menu of EudraGMDP database.

³ These requirements fulfil the GMP recommendations of WHO.

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Part 2

Manufacture of active substance. Names of substances subject to inspection :

TETANUS TOXOID(en) / ANATOXINE TÉTANIQUE(fr) / TOKSOID TEŻCOWY(pl)

DIPHThERIA TOXOID(en) / TOKSOID BŁONICZY(pl)

BACILLUS CALMETTE-GUERIN VACCINE(en)

POLIOMYELITIS VIRUS (INACTIVATED) TYPE 1 PRODUCED IN VERO CELLS(en)

POLIOMYELITIS VIRUS (INACTIVATED) TYPE 2 PRODUCED IN VERO CELLS(en)

POLIOMYELITIS VIRUS (INACTIVATED) TYPE 3 PRODUCED IN VERO CELLS(en)

3. MANUFACTURING OPERATIONS - ACTIVE SUBSTANCES	
Active Substance : TETANUS TOXOID	
3.3	Manufacturing of Active Substance using Biological Processes
	3.3.1 Fermentation 3.3.3 Isolation / Purification 3.3.4 Modification 3.3.5 Other : inactivation by tooidation
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance) 3.5.3 Secondary Packaging (placing the sealed primary package within an outer packaging material or container. This also includes any labelling of the material which could be used for identification or traceability (lot numbering) of the active substance)
3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing
Active Substance : DIPHTHERIA TOXOID	
3.3	Manufacturing of Active Substance using Biological Processes
	3.3.1 Fermentation 3.3.3 Isolation / Purification 3.3.4 Modification 3.3.5 Other : inactivation by toxoidation
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)



3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing
Active Substance : BACILLUS CALMETTE-GUERIN VACCINE	
3.3	Manufacturing of Active Substance using Biological Processes
	3.3.1 Fermentation 3.3.2 Cell Culture : live cells 3.3.3 Isolation / Purification 3.3.4 Modification
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)
3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing
Active Substance : POLIOMYELITIS VIRUS (INACTIVATED) TYPE 1 PRODUCED IN VERO CELLS	
3.3	Manufacturing of Active Substance using Biological Processes
	3.3.1 Fermentation 3.3.2 Cell Culture : vero cells 3.3.3 Isolation / Purification 3.3.4 Modification 3.3.5 Other : inactivation
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)
3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing
Active Substance : POLIOMYELITIS VIRUS (INACTIVATED) TYPE 2 PRODUCED IN VERO CELLS	
3.3	Manufacturing of Active Substance using Biological Processes

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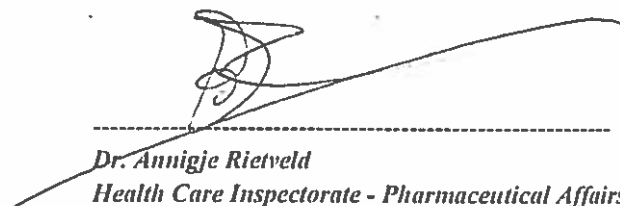
	3.3.1 Fermentation 3.3.2 Cell Culture : vero cells 3.3.3 Isolation / Purification 3.3.4 Modification 3.3.5 Other : inactivation
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)
3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing
Active Substance : POLIOMYELITIS VIRUS (INACTIVATED) TYPE 3 PRODUCED IN VERO CELLS	
3.3	Manufacturing of Active Substance using Biological Processes
	3.3.1 Fermentation 3.3.2 Cell Culture : vero cells 3.3.3 Isolation / Purification 3.3.4 Modification 3.3.5 Other : inactivation
3.4	Manufacture of sterile Active Substance
	3.4.1 Aseptically prepared
3.5	General Finishing Steps
	3.5.2 Primary Packaging (enclosing / sealing the active substance within a packaging material which is in direct contact with the substance)
3.6	Quality Control Testing
	3.6.1 Physical / Chemical testing 3.6.3 Microbiological testing including sterility testing 3.6.4 Biological Testing

4. Other Activities - Active Substances :
API reg # 6018



2017-05-08

Name and signature of the authorised person of the
Competent Authority of Netherlands



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Issued as a true copy as specified in Section 49, subsection 3 of the Dutch Notaries Act by me, Mr. Frans Eduard van Beek LL.M., civil-law notary practising in the Municipality of De Bilt, the Netherlands.

Signed in Bilthoven, the Netherlands, on the eighteenth of May two thousand seventeen

