

Health Products Regulatory Authority

CERTIFICATE NUMBER: 25678/ASR12633

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 Ireland confirms the following:

The manufacturer: Thermo Fisher Scientific Cork Limited

Site address: Currabinny, Carrigaline, Co. Cork, P43 AY66, Ireland

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:

Medicinal Products (Control of Manufacture) Regulations 2007 to 2013.

From the knowledge gained during inspection of this manufacturer, the latest of which was conducted on 2019-07-26, it is considered that it complies with:

• The principles of GMP for active substances 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.

Online EudraGMDP, Ref key: 56580

Issuance Date: 2019-10-02

Signatory: Dr. Michael Sreenan

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An tÚdarás Rialála Táirgí Sláinte, Teach Kevin O'Malley, Ionad Phort an Iarla, Ardán Phort an Iarla, Baile Átha Cliath 2, Éire Health Products Regulatory Authority, Kevin O'Malley House, Earlsfort Centre, Earlsfort Terrace, Dublin 2, D02XP77, Ireland

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.

Part 2

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

ABACAVIR SULFATE(en)

CARVEDILOL(en)

CARVEDILOL PHOSPHATE(en)

DUTASTERIDE(en)

ELTROMBOPAG OLAMINE(en)

LAPATINIB DITOSYLATE(en)

PAROXETINE HYDROCHLORIDE(en)

PAZOPANIB HYDROCHLORIDE(en)

ROPINIROLE HYDROCHLORIDE (en)

SALBUTAMOL SULFATE(en)

TOPOTECAN HYDROCHLORIDE (en)

3. MANUFACTURING OPERATIONS - ACTIVE SUBSTANCES Active Substance: ABACAVIR SULFATE Manufacture of Active Substance by Chemical Synthesis Manufacture of active substance intermediates 3.1.2 Manufacture of crude active substance 3.1.3 Salt formation / Purification steps: Salt Formation, Filtration, Isolation, Washing 3.5 **General Finishing Steps** 3.5.1 Physical processing steps: Drying and Sieving 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** Physical / Chemical testing Active Substance: CARVEDILOL Manufacture of Active Substance by Chemical Synthesis 3.1 Manufacture of crude active substance Salt formation / Purification steps: Reaction, Crystallization, Isolation, Washing 3.5 General Finishing Steps 3.5.1 Physical processing steps: Drying, Milling 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			
Activ	Active Substance : CARVEDILOL PHOSPHATE			
3.1	Manufacture of Active Substance by Chemical Synthesis			
	3.1.1 Manufacture of active substance intermediates			
	3.1.2 Manufacture of crude active substance			
	3.1.3 Salt formation / Purification steps : Reaction, Isolation, Washing			
3.5	General Finishing Steps			
	3.5.1 Physical processing steps : Drying, Delumping and /or Sieving			
	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			
Activ	ve Substance : DUTASTERIDE			
3.1	Manufacture of Active Substance by Chemical Synthesis			
	3.1.1 Manufacture of active substance intermediates			
	3.1.2 Manufacture of crude active substance			
	3.1.3 Salt formation / Purification steps:			
3.7	Reaction, Crystallization, Isolation, Washing			
3.5	General Finishing Steps			
	3.5.1 Physical processing steps: Drying			
	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			
Active Substance : ELTROMBOPAG OLAMINE				
	Manufacture of Active Substance by Chemical Synthesis			
3.1	Manufacture of Active Substance by Chemical Synthesis			
3.1	3.1.1 Manufacture of active substance intermediates 3.1.2 Manufacture of crude active substance			

	3.1.3 Salt formation / Purification steps:
	Salt Formation, Filtration, Isolation, Washing
3.5	General Finishing Steps
	3.5.1 Physical processing steps:
	Drying, Milling
	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
Activ	e Substance : LAPATINIB DITOSYLATE
3.1	Manufacture of Active Substance by Chemical Synthesis
	3.1.1 Manufacture of active substance intermediates
	3.1.2 Manufacture of crude active substance
	3.1.3 Salt formation / Purification steps:
	Dissolution, Crystallization, Isolation, Filtration, Washing
3.5	General Finishing Steps
	3.5.1 Physical processing steps:
	Drying, Sieving
	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
Activ	e Substance : PAROXETINE HYDROCHLORIDE
3.1	Manufacture of Active Substance by Chemical Synthesis
	3.1.1 Manufacture of active substance intermediates
	3.1.2 Manufacture of crude active substance
	3.1.3 Salt formation / Purification steps:
	Salt formation, Crystallization, Isolation, Filtration, Washing
3.5	General Finishing Steps
	3.5.1 Physical processing steps:
	Drying, Sieving, Milling
	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
A stive Substance + DA ZODANID HVDD OCHI ODIDE
Active Substance : PAZOPANIB HYDROCHLORIDE
3.1 Manufacture of Active Substance by Chemical Synthesis
3.1.1 Manufacture of active substance intermediates
3.1.2 Manufacture of crude active substance
3.1.3 Salt formation / Purification steps:
Dissolution, Crytsallization, Isolation, Filtration, Washing 3.5 General Finishing Steps
3.5.1 Physical processing steps:
Drying, Sieving 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
Active Substance : ROPINIROLE HYDROCHLORIDE
3.1 Manufacture of Active Substance by Chemical Synthesis
3.1.1 Manufacture of active substance intermediates
3.1.2 Manufacture of crude active substance
3.1.3 Salt formation / Purification steps:
Reaction, Separation, Isolation, Washing
3.5 General Finishing Steps
3.5.1 Physical processing steps:
Drying, Milling
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
5.0.1 Triysical / Choimeal testing
Active Substance : SALBUTAMOL SULFATE
3.1 Manufacture of Active Substance by Chemical Synthesis
3.1.3 Salt formation / Purification steps:
Salt Formation, Filtration, Isolation, Washing
3.5 General Finishing Steps
3.5.1 Physical processing steps:
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	Drying, Sieving			
	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			
Active Substance : TOPOTECAN HYDROCHLORIDE				
3.1	Manufacture of Active Substance by Chemical Synthesis			
	3.1.1 Manufacture of active substance intermediates			
	3.1.2 Manufacture of crude active substance			
	3.1.3 Salt formation / Purification steps:			
:	Salt Formation, Filtration, Crystallization, Isolation			
3.5	General Finishing Steps			
	3.5.1 Physical processing steps:			
	Drying, Delumping			
	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			

2019-10-02

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

Health Products Regulatory Authority

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